Access DB# 141999

SEARCH REQUEST FORM

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(STIC)

Scientific and Technical Information Center

Requester's Full Name: Molly Ceperley Examiner #: 59757 Date: 01/07/05
Art Unit: 1641 Phone Number ~~30~~ 2-0813 Serial Number: 10/058,807
Mail Box and Bldg/Room Location: Rem 3A51 Results Format Preferred (circle): ~~PAPER~~ DISK E-MAIL
↳ Rem 3C70

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): See bibliographic data sheet attached

_____

Earliest Priority Filing Date: 06/25/99

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

① Please search for the silanes (siloxanes or silicon compounds) of claims 4, 7 and 8 in combination with each of the terms POLYSTYRENE, GLASS (prefer fibers), QUARTZ and CERAMIC. These are solid phase supports for immunoassa

② Please do the search for ① in combination with each of the "amphipathic substances" described at pages 7+8 (prefer TWEENS). [This is a search for claim 14.] The "amphipathic substances" serve to reduce non-specific (unspecific binding or non-specific adsorption or absorption of proteins. See Example 1.

****

STAFF USE ONLY

Searcher: _____
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 1/13
Searcher Prep & Review Time: 10
Clerical Prep Time: _____
Online Time: 40

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN ~~E 10.1~~
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

PTO-1590 (8-01)

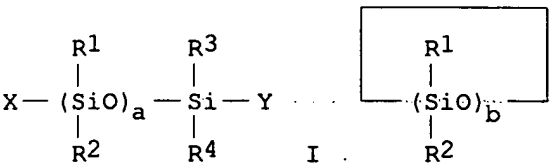
L3 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:12734 HCAPLUS
DOCUMENT NUMBER: 134:68442
ENTRY DATE: Entered STN: 05 Jan 2001
TITLE: Carrier support for immunoassay, and its use for solid phase for immunoassay
INVENTOR(S): Kumazawa, Toshiaki; Tagami, Hiroaki; Kiya, Yoshiyasu; Yokohama, Hiroaki; Mori, Hideharu; Matsumori, Shigeru
PATENT ASSIGNEE(S): Kyowa Medex Co., Ltd., Japan
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
INT. PATENT CLASSIF.:
MAIN: G01N033-552
SECONDARY: G01N033-551; G01N033-543
CLASSIFICATION: 9-10 (Biochemical Methods)
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001145	A1	20010104	WO 1999-JP3427	19990625 <--
W: AU, BG, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2377946	AA	20010104	CA 1999-2377946	19990625 <--
AU 9942897	A1	20010131	AU 1999-42897	19990625 <--
EP 1202063	A1	20020502	EP 1999-973928	19990625 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.: WO 1999-JP3427 W 19990625 <--
PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001001145	ICM	G01N033-552
	ICS	G01N033-551; G01N033-543

GRAPHIC IMAGE:



I II

ABSTRACT:
A newly developed carrier support for immunoassay is usable regardless of glass fiber composition, and is capable of improving the measurement sensitivity in comparison with the conventional carrier support using glass fiber. The carrier support is composed of, at least on its surface, a silicon compound (e.g., dialkylpolysiloxan, hydrophobic silane) represented by a general formula

(I) or (II). In I or II, R1 to R4, X and Y independently represent each hydrogen or an optionally substituted organic group; a is an integer of 0 to 5,000; and b is an integer of 3 to 20. An improved sensitivity was observed when the glass fiber membrane coated with dimethylpolysiloxan or octadecyltriethoxysilane was applied to an immunoassay of anti-HCV antibody or anti-Treponema pallidum antibody.

SUPPL. TERM: immunoassay carrier glass fiber coating silicone
INDEX TERM: Polysiloxanes, uses
ROLE: NUU (Other use, unclassified); USES (Uses)
(alkenyl; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Silanes
ROLE: NUU (Other use, unclassified); USES (Uses)
(alkoxy, alkyltrialkoxy; vinyltrialkoxy; phenyltrialkoxy; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Polysiloxanes, uses
ROLE: NUU (Other use, unclassified); USES (Uses)
(alkoxylated; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Silanes
ROLE: NUU (Other use, unclassified); USES (Uses)
(alkylalkoxy, alkyltrialkoxy; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Surfactants
(amphiphilic; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Silanes
ROLE: NUU (Other use, unclassified); USES (Uses)
(aryl, phenyltrialkoxy; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Alkyl groups
Amino group
Amphiphiles
Carriers
Ceramics
Coating materials
Immunoassay
Membranes, nonbiological
Phenyl group
Porous materials
Treponema pallidum
(carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Glass, uses
Glass fibers, uses
ROLE: DEV (Device component use); USES (Uses)
(carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Polysiloxanes, uses
ROLE: NUU (Other use, unclassified); USES (Uses)
(dialkyl; di-Me; carrier support for immunoassay, and use for solid phase for immunoassay)
INDEX TERM: Antigens
ROLE: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(hepatitis C core; carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: Molecules
(hydrophobic; carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: Silanes
ROLE: NUU (Other use, unclassified); USES (Uses)
(hydrophobic; carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: Functional groups
(hydroxysilyl; carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: Surfactants
(nonionic; carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: Antibodies
ROLE: ANT (Analyte); ANST (Analytical study)
(to hepatitis C virus; to Treponema pallidum; carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: **112-03-8**, Cation AB **151-21-3**, SDS, analysis **9002-93-1**, Triton-X100 **9004-95-9**, Brij-56 **9005-67-8**, Tween-60 **115055-57-7**, Persoft EL
ROLE: ARU (Analytical role, unclassified); ANST (Analytical study)
(carrier support for immunoassay, and use for solid phase for immunoassay)

INDEX TERM: **14808-60-7**, Quartz, uses
ROLE: DEV (Device component use); USES (Uses)
(carrier support for immunoassay, and use for solid phase for immunoassay)

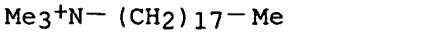
INDEX TERM: **7399-00-0**, Octadecyltriethoxysilane
ROLE: NUU (Other use, unclassified); USES (Uses)
(carrier support for immunoassay, and use for solid phase for immunoassay)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S):
(1) Boehringer Mannheim Gmbh; EP 468481 A HCAPLUS
(2) Boehringer Mannheim Gmbh; JP 04232858 A 1992 HCAPLUS
(3) Daikin Industries Ltd; JP 06123739 A 1994 HCAPLUS
(4) Rhone Poulenc Chimie; EP 435785 A HCAPLUS
(5) Rhone Poulenc Chimie; EP 436450 A HCAPLUS
(6) Rhone Poulenc Chimie; JP 04279664 A 1992 HCAPLUS
(7) Rhone Poulenc Chimie; JP 04356527 A 1992 HCAPLUS

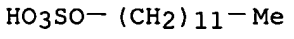
IT **112-03-8**, Cation AB **151-21-3**, SDS, analysis **9002-93-1**, Triton-X100 **9004-95-9**, Brij-56 **9005-67-8**, Tween-60 **115055-57-7**, Persoft EL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(carrier support for immunoassay, and use for solid phase for immunoassay)

RN 112-03-8 HCAPLUS
CN 1-Octadecanaminium, N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



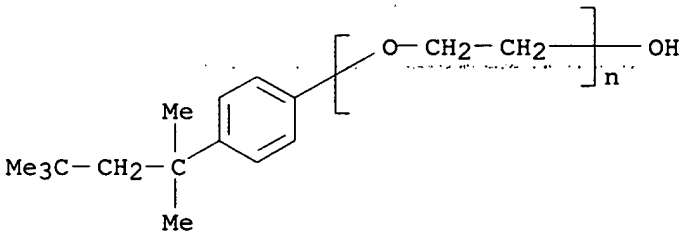
● Cl^-

RN 151-21-3 HCAPLUS
CN Sulfuric acid monododecyl ester sodium salt (8CI, 9CI) (CA INDEX NAME)

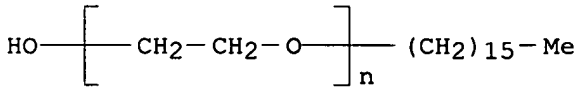


● Na

RN 9002-93-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy- (9CI) (CA INDEX NAME)



RN 9004-95-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hexadecyl-ω-hydroxy- (9CI) (CA INDEX NAME)

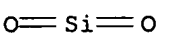


RN 9005-67-8 HCAPLUS
CN Sorbitan, monooctadecanoate, poly(oxy-1,2-ethanediyl) derivs. (9CI) (CA INDEX NAME)

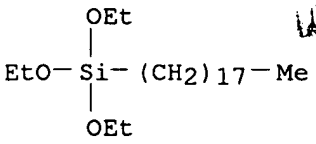
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 115055-57-7 HCAPLUS
CN Nissan Persoft EL (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **14808-60-7**, Quartz, uses
RL: DEV (Device component use); USES (Uses)
(carrier support for immunoassay, and use for solid phase for immunoassay)

RN 14808-60-7 HCAPLUS
CN Quartz (SiO2) (9CI) (CA INDEX NAME)



IT **7399-00-0**, Octadecyltriethoxysilane
RL: NUU (Other use, unclassified); USES (Uses)
(carrier support for immunoassay, and use for solid phase for immunoassay)
RN 7399-00-0 HCAPLUS
CN Silane, triethoxyoctadecyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



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=> d que l29
L16        18412 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)(DI
                 METHYL OR DI ME OR DIMETHYL OR DI ALKYL OR DIALKYL OR DI ET OR
                 DI ETHYL OR DIETHYL OR ALKOXY OR METHOXY OR ALKYLTRIALKOXY OR
                 VINYLTRIALKOXY OR PHENYLTRIALKOXY OR PHENYLTRIALKOXY OR
                 OCTADECYLTRIETHOXY OR ?TRIETHOXY?)
L17         2646 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SILANES+PFT/CT(L)(DI METHYL
                 OR DI ME OR DIMETHYL OR DI ALKYL OR DIALKYL OR DI ET OR DI
                 ETHYL OR DIETHYL OR ALKOXY OR METHOXY OR ALKYLTRIALKOXY OR
                 VINYLTRIALKOXY OR PHENYLTRIALKOXY OR PHENYLTRIALKOXY OR
                 OCTADECYLTRIETHOXY OR ?TRIETHOXY?)
L18        20963 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 OR L17
L19       104183 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSTYRENE+PFT,NT/CT
L20       166952 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLASS+PFT/CT
L21        45256 SEA FILE=HCAPLUS ABB=ON  PLU=ON  QUARTZ+PFT/CT
L22         1498 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CERAMICS+PFT/CT(L)SUPPORT
L23         1239 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND (L19 OR L20 OR L21 OR
                 L22)
L24        53238 SEA FILE=HCAPLUS ABB=ON  PLU=ON  IMMUNOASSAY+PFT,NT/CT
L25            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 AND (L24 OR IMMUNOASS? OR
                 ELISA)
L26          529 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)SUPPORT

L27           81 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SILANES+PFT/CT(L)SUPPORT
L28           14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 AND (L26 OR L27)
L29           20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 OR L28

=> d l29 ibib abs hitind 1-20

L29  ANSWER 1 OF 20  HCAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:113516  HCAPLUS
DOCUMENT NUMBER:          140:166123
TITLE:                    Tethered polymer ligands
INVENTOR(S):              Hammen, Richard F.; Hammen, John P.
PATENT ASSIGNEE(S):       Hammen Corporation, USA
SOURCE:                   U.S., 8 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     US 6689715           B1     20040210    US 2001-780131           20010209
     US 2004224843        A1     20041111    US 2004-774344           20040206
PRIORITY APPLN. INFO.:                       US 2000-181409P      P   20000209
                                             US 2001-780131       A1  20010209
AB   This invention relates to improved porous solid supports for chromatog.
     and catalysis.  The supports are prepared by covalently binding a tether
     polymer to a solid support, and then blocking the remainder of the support
     surface with a blocking reagent.  The tethered polymer ligands are then
     covalently bound to the support by graft polymerization reactions.
IC   ICM  B01J020-02
NCL  502405000; 502415000; 502402000
CC   48-8 (Unit Operations and Processes)
     Section cross-reference(s): 35, 38, 39, 80
```

IT **Silanes**
RL: TEM (Technical or engineered material use); USES (Uses)
(alkenyl, polybutadienyl derivs., reaction products with porous solid; polymer ligands tethered to porous solid **supports**)
IT **Silanes**
RL: TEM (Technical or engineered material use); USES (Uses)
(**alkoxy**, trialkoxy, reaction products with porous solid; polymer ligands tethered to porous solid **supports**)
IT **Silanes**
RL: TEM (Technical or engineered material use); USES (Uses)
(alkyl, reaction products with porous solid; polymer ligands tethered to porous solid **supports**)
IT **Silanes**
RL: TEM (Technical or engineered material use); USES (Uses)
(halosilanes, trihalo, reaction products with porous solid; polymer ligands tethered to porous solid **supports**)
IT 1344-28-1D, Alumina, functionalized tethered polymer reaction products
7803-62-5D, Silane, 2-trichlorosilylethyl-, methoxypropyl ethylene glycol-, substituted ethylene glycol-, polyethylene glycol-, polyvinyl alc.-, and polypropylene glycol-containing derivs., reaction products with porous solid **9003-53-6D**, Polystyrene, functionalized tethered polymer reaction products
RL: TEM (Technical or engineered material use); USES (Uses)
(polymer ligands tethered to porous solid supports)
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:571124 HCAPLUS
DOCUMENT NUMBER: 139:127976
TITLE: Screening for antiviral agents based on inhibition of binding of nucleocapsid 7 protein to the ψ site oligonucleotide of HIV-1 RNA
INVENTOR(S): Beuchter, Douglas; Hou, Xiaohong; Marlor, Christopher W.; Rice, William G.; Yang, Wengang
PATENT ASSIGNEE(S): Achillion Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003060098	A2	20030724	WO 2003-US801	20030110
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003198648	A1	20031023	US 2003-339217	20030109
PRIORITY APPLN. INFO.:			US 2002-347369P	P 20020111
OTHER SOURCE(S):	MARPAT 139:127976			

AB The present invention relates to methods of identifying a mol. from a library of mols. that inhibits binding of human immunodeficiency virus nucleocapsid 7 polypeptide (NCp7) to an oligonucleotide comprising the ψ site of HIV-1 virus. Thus, an NCp7 polypeptide is admixed with at one labeled HIV-1 ψ-site oligonucleotide and an amount of the mol. to be tested under binding conditions. A decrease in the amount of oligonucleotide bound in the presence of the mol. compared with the amount of oligonucleotide bound in the absence of the mol. indicates that the mol. inhibits binding of NCp7 polypeptide to the oligonucleotide. The inhibiting agents may be used for treating HIV infection and/or inhibiting HIV viral replication (no data).

IC ICM C12N

CC 1-1 (Pharmacology)

IT **Silanes**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**alkoxy**, polycarbonate solid **support** derivatized by; screening for antiviral agents based on inhibition of binding of nucleocapsid 7 protein to the ψ site oligonucleotide of HIV-1 RNA)

IT **Glass, analysis**
Polycarbonates, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(solid support; screening for antiviral agents based on inhibition of binding of nucleocapsid 7 protein to the ψ site oligonucleotide of HIV-1 RNA)

IT 7631-86-9, Silica, analysis 9003-07-0, Polypropylene **9003-53-6**, Polystyrene
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(solid support; screening for antiviral agents based on inhibition of binding of nucleocapsid 7 protein to the ψ site oligonucleotide of HIV-1 RNA)

L29 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:118467 HCAPLUS
DOCUMENT NUMBER: 138:149900
TITLE: Preparation of support matrix with aldehydic silanes and its biological applications
INVENTOR(S): Coyne, Ann N.; MacMillan, John H.; Telepchak, Michael J.
PATENT ASSIGNEE(S): United Chemical Technologies, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003032012	A1	20030213	US 2001-847212	20010502
US 6589799	B2	20030708		
US 2003207468	A1	20031106	US 2003-438432	20030515
PRIORITY APPLN. INFO.:			US 2001-847212	A3 20010502

OTHER SOURCE(S): MARPAT 138:149900

AB The invention concerns a method for producing a derivatized aldehydic support matrix material includes activating surface hydroxyl groups on the support matrix material and reacting the activated hydroxyl groups with an aldehydic alkoxy silane. The derivatized aldehydic support matrix material produced is useful for immobilizing bio-mols. in biol. applications. The present invention is further directed to an apparatus and

method for using a derivatized solid support matrix with aldehydic functionalities to immobilize biomols. for biol. applications.
IC ICM C12Q001-68
ICS C12M001-34; B05D003-00; G01N033-543
NCL 435006000; 435287200; 427002110
CC 9-1 (Biochemical Methods)
IT **Silanes**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(**alkoxy**; preparation of **support** matrix with aldehydic silanes and its biol. applications)
IT **Glass, preparation**
Polysiloxanes, preparation
Resins
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(preparation of **support** matrix with aldehydic silanes and its biol. applications)

L29 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:977885 HCAPLUS
DOCUMENT NUMBER: 138:52360
TITLE: Preparation of support matrix material with alkoxy aldehydric silane groups and its biological applications
INVENTOR(S): Coyne, Ann; MacMillan, John H.; Telepchak, Michael J.
PATENT ASSIGNEE(S): United Chemical Technologies, Inc., USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102879	A2	20021227	WO 2002-US10028	20020327
WO 2002102879	A3	20040108		

W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, SG, SI, SK, TN, TT, UG, UZ, VN, ZA
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-827212 A 20010502
OTHER SOURCE(S): MARPAT 138:52360
AB A method for producing a derivatized aldehydic support matrix material includes: activating the hydroxyl groups with acids on the surface of the support matrix material, such as glasses, agarose, silica, alumina, etc.; reacting the actived hydroxyl groups with an aldehydic alkoxy silane to produce a derivatized matrix material. The prepared material is applied in making apparatus, such as hollow column and microtube, for immobilizing bio-mols. including the following steps: providing a column containing aldehydric derivated matrix material comprising a support matrix material having a surface area at least partially coated with siloxane that have a plurality of organic substituents containing aldehydic functional groups pendant;
washing the column with buffer; adding the solution of bi-mols. to be

immobilized; and incubating the column to immobilize at least a portion of the bio-mols. Thus, silica gel suspension was first treated with glacial acetic acid for 30 min, followed by addition of triethoxy aldehydic silane under the protection of N2 to obtain aldehydic silica, which could be used to immobilize protein A in phosphate buffer saline.

IC ICM C08J

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 37

IT **Silanes**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**alkoxy**, surface treated; preparation of **support** matrix material with **alkoxy** aldehydric silane groups and its biol. applications)

IT **Glass, biological studies**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(matrix material; for support matrix material with alkoxy aldehydric silane groups)

L29 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:709171 HCAPLUS
DOCUMENT NUMBER: 137:239843
TITLE: Antiglare film and its use in display device
INVENTOR(S): Nakamura, Kazuhiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002267814	A2	20020918	JP 2001-72276	20010314
PRIORITY APPLN. INFO.:			JP 2001-72276	20010314

AB The film has an antiglare layer containing particles (e.g., Si compds., metal compds., polymers) having average grain diameter 0.5-3 μm and standard deviation ≤0.7 μm on a triacetylcellulose film support prepared by (1) single layer-casting a dope of triacetylcellulose in dichloromethane-free solvents or (2) multiple layer-co-casting dopes of triacetylcellulose in solvents. The antiglare layer may contain cured film of a UV-curable resin composition and may be layered with a fluoropolymer layer or multilayer antireflection layers. The display using the antiglare film may be a liquid crystal display, a plasma display, or a CRT display. The film gives the display with balanced antiglare property and resolution and high-quality image.

IC ICM G02B005-02
ICS B32B007-02; B32B023-04; G02B001-11; G02B005-30; G02F001-1335; G09F009-00; H04N005-72

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73

IT **Polysiloxanes, uses**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(**di-Me**, fluorine-containing, antireflection layer

containing, Opstar JN 7228; antiglare film having size-controlled particle-containing layer on triacetylcellulose **support** for display)

IT **9003-53-6**, Polystyrene
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(crosslinked, particles; antiglare film having size-controlled particle-containing layer on triacetylcellulose support for display)

L29 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:176157 HCAPLUS
DOCUMENT NUMBER: 136:224310
TITLE: Antiglare and antireflective films, polarizers, and liquid crystal displays therewith
INVENTOR(S): Nakamura, Kazuhiro; Koshimizu, Shinichi; Yamazaki, Hidekazu
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002071904	A2	20020312	JP 2000-263715	20000831
PRIORITY APPLN. INFO.:			JP 2000-263715	20000831

AB The films bear antiglare layers and low-n layers in the order on multilayer transparent supports which are manufactured from low- and high-concentration triacetyl cellulose dopes by co-casting method. The films show excellent scratch resistance and antistaining property, and LCD (liquid crystal displays) employing the films (as the outermost surfaces of polarizers) show superior visibility.

IC ICM G02B001-11
ICS B29C041-32; B32B023-08; B32B027-20; B32B027-30; C08F002-44; C08F002-48; C08F257-02; C08J007-04; G02B001-10; G02B005-30; G02F001-1335; B29K001-00; B29L009-00; C08L001-12

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73

IT **Polysiloxanes, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(**di-Me**, fluorine-containing, low-n layers; antiglare and antireflective films employing multilayer TAC **supports** for polarizers and LCD)

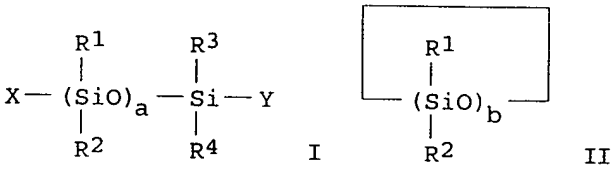
IT 1314-23-4, Zirconia, uses **9003-53-6D**, Polystyrene, crosslinked
402829-66-7, SX 200HS
RL: TEM (Technical or engineered material use); USES (Uses)
(antiglare layers; antiglare and antireflective films employing multilayer TAC supports for polarizers and LCD)

L29 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:12734 HCAPLUS
DOCUMENT NUMBER: 134:68442
TITLE: Carrier support for **immunoassay**, and its use for solid phase for **immunoassay**
INVENTOR(S): Kumazawa, Toshiaki; Tagami, Hiroaki; Kiya, Yoshiyasu; Yokohama, Hiroaki; Mori, Hideharu; Matsumori, Shigeru

PATENT ASSIGNEE(S): Kyowa Medex Co., Ltd., Japan
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001145	A1	20010104	WO 1999-JP3427	19990625
W: AU, BG, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2377946	AA	20010104	CA 1999-2377946	19990625
AU 9942897	A1	20010131	AU 1999-42897	19990625
EP 1202063	A1	20020502	EP 1999-973928	19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.: WO 1999-JP3427 W 19990625
GI



I II

applicants

AB A newly developed carrier support for **immunoassay** is usable regardless of glass fiber composition, and is capable of improving the measurement sensitivity in comparison with the conventional carrier support using glass fiber. The carrier support is composed of, at least on its surface, a silicon compound (e.g., dialkylpolysiloxan, hydrophobic silane) represented by a general formula (I) or (II). In I or II, R1 to R4, X and Y independently represent each hydrogen or an optionally substituted organic group; a is an integer of 0 to 5,000; and b is an integer of 3 to 20. An improved sensitivity was observed when the glass fiber membrane coated with dimethylpolysiloxan or octadecyltriethoxysilane was applied to an **immunoassay** of anti-HCV antibody or anti-Treponema pallidum antibody.

IC ICM G01N033-552
ICS G01N033-551; G01N033-543
CC 9-10 (Biochemical Methods)
ST **immunoassay** carrier glass fiber coating silicone
IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(alkenyl; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(**alkoxy**, **alkyltrialkoxy**; **vinyltrialkoxy**; **phenyltrialkoxy**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT **Polysiloxanes, uses**

RL: NUU (Other use, unclassified); USES (Uses)
(alkoxylated; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(alkylalkoxy, **alkyltrialkoxy**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT Surfactants
(amphiphilic; carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(aryl, **phenyltrialkoxy**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT Alkyl groups
Amino group
Amphiphiles
Carriers
Ceramics
Coating materials
Immunoassay
Membranes, nonbiological
Phenyl group
Porous materials
Treponema pallidum
(carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Glass, uses**
Glass fibers, uses
RL: DEV (Device component use); USES (Uses)
(carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(**dialkyl**; **di-Me**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT Antigens
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(hepatitis C core; carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT Molecules
(hydrophobic; carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(hydrophobic; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT Functional groups
(hydroxysilyl; carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT Surfactants
(nonionic; carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT Antibodies
RL: ANT (Analyte); ANST (Analytical study)
(to hepatitis C virus; to Treponema pallidum; carrier support for **immunoassay**, and use for solid phase for **immunoassay**)

IT 112-03-8, Cation AB 151-21-3, SDS, analysis 9002-93-1, Triton-X100

9004-95-9, Brij-56 9005-67-8, Tween-60 115055-57-7, Persoft EL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(carrier support for **immunoassay**, and use for solid phase for **immunoassay**)
IT **14808-60-7**, Quartz, uses
RL: DEV (Device component use); USES (Uses)
(carrier support for **immunoassay**, and use for solid phase for **immunoassay**)
IT 7399-00-0, Octadecyltriethoxysilane
RL: NUU (Other use, unclassified); USES (Uses)
(carrier support for **immunoassay**, and use for solid phase for **immunoassay**)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:384565 HCAPLUS
DOCUMENT NUMBER: 133:28236
TITLE: Methods and compositions for performing an array of chemical reactions on a support surface
INVENTOR(S): Zebala, John A.
PATENT ASSIGNEE(S): Syntrix Biochip, Inc., USA
SOURCE: PCT Int. Appl., 157 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000033084	A2	20000608	WO 1999-US28021		19991123
WO 2000033084	A3	20000810			
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
AU 2000018317	A5	20000619	AU 2000-18317		19991123
EP 1163374	A2	20011219	EP 1999-961813		19991123
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002531470	T2	20020924	JP 2000-585669		19991123
PRIORITY APPLN. INFO.:			US 1998-110527P	P	19981201
			US 1999-326479	A	19990604
			WO 1999-US28021	W	19991123

AB Compns. and methods are provided for performing regionally selective solid-phase chemical synthesis of organic compds. Such methods may employ solvent-resistant photoresist compns. to prepare arrays of organic compds., such as ligands, for use within a variety of diagnostic and drug discovery assays. Ligand-arrays may comprise, for example, nucleobase polymers that are resistant to degradative enzymes. DNA probes and enalaprilat analogs were synthesized on glass slides using a photoresist method and used in hybridization assays and ACE inhibitory activity screening.
IC ICM G01N033-68

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 1, 3, 26, 33, 80
IT **Silanes**
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(**alkoxy**, as linkers; methods and compns. for performing arrays of chemical reactions on **support** surfaces using photoresists)
IT **Glass, reactions**
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(as substrate; methods and compns. for performing arrays of chemical reactions on support surfaces using photoresists)

L29 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:620530 HCAPLUS
DOCUMENT NUMBER: 131:240077
TITLE: Carrier and solid support for **immunoassay**
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu; Yokohama, Hiroaki; Mori, Shuji; Matsumori, Shigeru
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11264823	A2	19990928	JP 1998-372946	19981228
PRIORITY APPLN. INFO.:			JP 1997-368381	19971227

AB Carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins, e.g. IgG, in **immunoassay** of antigen or antibody. The silicon compound is dialkyl-polysiloxane (e.g. dimethylpolysiloxane), or a hydrophobic silane: alkyltrialkoxysilane, vinyltrialkoxysilane, or phenyltrialkoxysilane (e.g. octadecyltriethoxysilane). A such porous carrier comprising glass fiber coated with dimethylpolysiloxane was prepared for immobilization of hepatitis C core antigen for immunodiagnosis of anti-HCV pos. sera.
IC ICM G01N033-552
ICS C03C025-02; G01N033-543
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15
ST **immunoassay** carrier silicon compd dialkylpolysiloxane silane
IT Immunoglobulins
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(G, serum; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)
IT Functional groups
(alkoxy groups; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)
IT Silanes

RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(alkylalkoxy, Ph; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(alkylalkoxy, alkyl; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(alkylalkoxy, vinyl; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Surfactants
(amphoteric; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Proteins, general, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(blood; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Blood serum
Carriers
Ceramics
Immunoassay
Treponema pallidum
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Antibodies
Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT **Glass, analysis**
Glass fibers, analysis
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT **Polysiloxanes, analysis**
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**dialkyl**; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Antigens
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study);

USES (Uses)
(hepatitis C core; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(hydrophobic; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Surfactants
(nonionic; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT 7399-00-0, Octadecyltriethoxysilane 7440-21-3D, Silicon, compds., analysis 9002-93-1, Triton X-100 9005-64-5, Tween 20 9016-00-6, Dimethylpolysiloxane **14808-60-7**, Quartz, analysis
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

L29 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:478928 HCAPLUS
DOCUMENT NUMBER: 129:138077
TITLE: Synthesis of inorganic zeolitic or molecular sieve membranes on porous supports using silicones
INVENTOR(S): Ruderman, Warren; Fehlner, James R.; Zhang, Zhenyu
PATENT ASSIGNEE(S): Inrad, USA
SOURCE: U.S., 20 pp., Cont.-in-part of U.S. 5,474,681.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5779904	A	19980714	US 1995-477035	19950607
US 5474681	A	19951212	US 1992-864814	19920331
PRIORITY APPLN. INFO.:			US 1992-864814	A2 19920331

AB Inorg. membranes such as zeolite membranes or other mol. sieve membranes can be prepared by using silicone polymers as starting material. A thin film zeolite membrane or a thin film membrane formed of interlocking zeolite crystals can be prepared Water soluble or water insol. silicones in a basic solution can be combined with an appropriate structure directing template material and suitable aluminum source. A support can be immersed in the solution which is heated at a suitable temperature (90-300°C) for ≥4 h to grow a layer with a desired inorg. crystal framework across the holes of the porous support. The membranes can be formed across the perforations of supports such as stainless steel screens or porous ceramics. In examples, a ZSM-5 film was formed from a crosslinked Silastic 590 film and NaAlO2/TPA-Br in aqueous NaOH.

IC ICM B01D039-00
NCL 210500250
CC 49-4 (Industrial Inorganic Chemicals)
Section cross-reference(s): 35, 39, 47
IT **Polysiloxanes, reactions**

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(alkyl; inorg. zeolitic or mol. sieve membrane synthesis preparation on porous **supports** using silicones)

IT **Polysiloxanes, reactions**
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(**di-Me**; inorg. zeolitic or mol. sieve membrane synthesis preparation on porous **supports** using silicones)

IT **Polysiloxanes, reactions**
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(inorg. zeolitic or mol. sieve membrane synthesis preparation on porous **supports** using silicones)

IT **Ceramics**
(**supports**; inorg. zeolitic or mol. sieve membrane synthesis preparation on porous **supports** using silicones)

IT **Glass, uses**
Metals, uses
Oxides (inorganic), uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(supports; inorg. zeolitic or mol. sieve membrane synthesis preparation on porous supports using silicones)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:491486 HCAPLUS
DOCUMENT NUMBER: 127:97177
TITLE: Sol-gel process for manufacturing zeolite-coated porous supports, and the membranes obtained and their use
INVENTOR(S): Anstett, Martine; Le Dred, Ronan; Guth, Jean-Louis; Methivier, Alain; Streicher, Christian
PATENT ASSIGNEE(S): Institut Francais Du Petrole, Fr.
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 778076	A1	19970611	EP 1996-402589	19961129
EP 778076	B1	20031105		
R: DE, FR, GB, IT				
FR 2742070	A1	19970613	FR 1995-14563	19951208
FR 2742070	B1	19980109		
JP 09173799	A2	19970708	JP 1996-327209	19961206
US 6140263	A	20001031	US 1996-761340	19961206

PRIORITY APPLN. INFO.: FR 1995-14563 A 19951208

AB The membranes, comprising a porous support provided with a continuous coating of controlled thickness and selected from zeolites, silico-metalates, meso- and microporous oxides, are manufactured by (1) contacting the porous support in succession with 2 immiscible liqs. containing the agents required for forming the gel, and (2) converting the resulting gel into the desired oxide. The resulting membranes are used for separating

gases and liqs. An α-Al2O3 support (pore diameter 0.15 μm) was dried overnight at 60° and cooled in a desiccator. The support (1.9563 g) was immersed in 17 g aqueous solution containing 4 weight% NaOH and 3.1 weight% N(Pr)4OH for 2 h. The support containing 0.37 g solution was then immersed in 10 g Si(OMe)4 for 3 h. The support, whose weight had increased by 0.09 g and the zeolite precursor gel was placed in saturated steam of 170° for 48 h, cooled, washed, dried at 60°, cooled, to give a membrane (2.1037 g) that was again immersed in in the 1st solution for 2 h, and in the Si(OMe)4 for 3 h, giving a weight increase of 0.02 g. The material, impervious to CH4, was again hydrothermally crystallized for 48 h, dried, and calcined at 500° for 6 h.

IC ICM B01D071-02
ICS B01J029-06; B01J020-18; B01J035-06

CC 49-4 (Industrial Inorganic Chemicals)

IT **Silanes**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**alkoxy**; sol-gel process for manufacturing silica-coated porous alumina **supports** for gas and liquid sepns.)

IT **Silanes**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(chloro; sol-gel process for manufacturing silica-coated porous alumina **supports** for gas and liquid sepns.)

IT **Glass, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(porous, supports; sol-gel process for manufacturing oxide-coated porous supports for gas and liquid sepns.)

L29 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:546598 HCAPLUS
DOCUMENT NUMBER: 125:242354
TITLE: Methods for production of an optical assay device
INVENTOR(S): Bogart, Gregory R.
PATENT ASSIGNEE(S): Biostar, Inc., USA
SOURCE: U.S., 69 pp., Cont.-in-part of U.S. Ser. No. 923,270,abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5550063	A	19960827	US 1993-76347	19930610
AU 9179004	A1	19921021	AU 1991-79004	19910320
AU 653940	B2	19941020		
EP 539383	A1	19930505	EP 1991-910056	19910320
EP 539383	B1	19960918		
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05506936	T2	19931007	JP 1991-509344	19910320
JP 3193373	B2	20010730		
ES 2094224	T3	19970116	ES 1991-910056	19910320
JP 2001235473	A2	20010831	JP 2000-287242	19910320
EP 1122539	A2	20010808	EP 2001-111726	19920211
EP 1122539	A3	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC				
EP 1122540	A2	20010808	EP 2001-111727	19920211

EP 1122540 A3 20011107
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC
JP 2002189028 A2 20020705 JP 2001-312846 19920211
JP 2004045421 A2 20040212 JP 2003-323351 20030916
PRIORITY APPLN. INFO.: US 1991-653064 B2 19910211
US 1992-923270 B2 19920731
EP 1991-910056 A 19910320
JP 1991-509344 A3 19910320
WO 1991-US1781 A 19910320
EP 1992-906299 A3 19920211
JP 1992-505739 A3 19920211
JP 2001-312846 A3 19920211

AB Methods are disclosed for producing an optical assay device having a substrate and ≥1 optical layers, an attachment layer and a receptive layer, including the step of spin coating an anti-reflective layer or an attachment layer. The devices may be used for the detection of, e.g., Streptococcus, Chlamydia, respiratory syncytial virus, human immunodeficiency virus, hepatitis virus, etc. by **immunoassay** methods.

IC ICM G01N033-543
NCL 436518000
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 7, 10, 14, 15, 73
ST optical thin film app biochem analysis; bacteria detection optical interference assay app; virus detection optical interference assay app; **immunoassay** optical thin film app
IT Bacteria
Blood analysis
Chlamydia
Chlamydia trachomatis
Ellipsometers
Haemophilus influenzae
Immunoassay
Latex
Neisseria meningitidis
Optical detectors
Reflectometers
Streptococcus pneumoniae
Virus
(optical assay device production for detection of bacteria and viruses)
IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(**di-Me**, mercaptopropyl Me, alkyl-terminated; optical assay device production for detection of bacteria and viruses)
IT **Immunoassay**
(enzyme-linked immunosorbent assay, optical assay device production for detection of bacteria and viruses)
IT **Glass, oxide**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(sodium borosilicate, optical assay device production for detection of bacteria and viruses)
IT 75-78-5 546-68-9, Tetra isopropyltitanate 778-24-5, Dimethyldiphenylsilane 919-30-2, 3-Aminopropyltriethoxysilane 1760-24-3 5593-70-4 7429-90-5, Aluminum, analysis 7440-21-3, Silicon, analysis 7440-47-3, Chromium, analysis 7782-40-3, Diamond, analysis 9002-98-6, Polyethylenimine 9003-17-2D, Polybutadiene, triethoxysilyl-modified **9003-53-6**, Polystyrene 11105-01-4,

Silicon oxynitride 12033-89-5, Silicon nitride, analysis 13463-67-7, Titanium dioxide, analysis 31900-57-9D, Poly dimethylsiloxane, aminoalkyl derivs. 144856-48-4, TC7A 163442-68-0, Starburst 5th Generation 182129-84-6
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(optical assay device production for detection of bacteria and viruses)

L29 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:382906 HCAPLUS
DOCUMENT NUMBER: 125:53034
TITLE: Specific binding assays and reagents therefore
INVENTOR(S): Kiaei, David; Livshin, Laurie Ann; Piran, Uri
PATENT ASSIGNEE(S): Ciba Corning Diagnostics Corp., USA
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 713095	A2	19960522	EP 1995-308090	19951113
EP 713095	A3	19960731		
EP 713095	B1	20010530		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI				
US 5639626	A	19970617	US 1994-339870	19941115
AU 9520447	A1	19960523	AU 1995-20447	19950602
AU 713482	B2	19991202		
CA 2151197	AA	19960516	CA 1995-2151197	19950607
PL 178150	B1	20000331	PL 1995-309211	19950621
JP 08240590	A2	19960917	JP 1995-271031	19951019
EP 1085322	A1	20010321	EP 2000-204023	19951113
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI				
US 5710006	A	19980120	US 1997-821664	19970319
PRIORITY APPLN. INFO.:			US 1994-339870 A	19941115
			EP 1995-308090 A3	19951113

AB A sensitive assay method was discovered that reduces the amount of nonspecific binding present in an assay, e.g., **immunoassay** or gene probe assay. The method comprises detecting an analyte present in a sample through a specific binding reaction in which either an analog of the analyte or a specific binding partner of the analyte is immobilized on a solid phase and said specific binding reaction produces a detectable product immobilized on said solid phase that may be correlated to the amount of analyte present in the sample. This assay employs an effective amount of a surfactant selected from the group consisting of a polyoxyethylene-alkyl ether, a polyalkylene oxide-modified polydimethylsiloxane block copolymer, a polyalkylene oxide-modified polymethylsiloxane block copolymer, and mixts. thereof to reduce nonspecific binding.
IC ICM G01N033-543
ICA G01N033-573
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 3, 15
ST solid phase binding assay nonionic surfactant; heterogeneous **immunoassay** nonspecific binding redn surfactant; genetic probe assay nonspecific binding redn
IT Genetic methods
Immunoassay

(heterogeneous binding assays with nonionic surfactant to reduce nonspecific binding)

IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**di-Me**, polyalkylene oxide-modified; heterogeneous binding assays with nonionic surfactant to reduce nonspecific binding)

IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**di-Me**, 3-hydroxypropyl Me, ethoxylated propoxylated, heterogeneous binding assays with nonionic surfactant to reduce nonspecific binding)

IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**di-Me**, hydroxypropyl Me, ethers with polyoxyalkylene glycol mono-C1-3-alkyl ether, heterogeneous binding assays with nonionic surfactant to reduce nonspecific binding)

IT 9002-89-5, PVA 9002-92-0, Brij 30 9002-93-1, Triton X 100 9003-07-0, Polypropylene **9003-53-6**, Polystyrene 9005-64-5, Tween 20 14265-44-2, Phosphate, analysis 25322-68-3, Polyethylene oxide 25322-68-3D, alkyl ethers 106392-12-5, Pluronic 110617-70-4, Tetronic
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(heterogeneous binding assays with nonionic surfactant to reduce nonspecific binding)

L29 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:87520 HCAPLUS
DOCUMENT NUMBER: 124:169996
TITLE: Devices and methods for detection of an analyte based upon light interference
INVENTOR(S): Bogart, Gregory R.; Moddel, Garret R.; Maul, Diana M.; Etter, Jeffrey B.
PATENT ASSIGNEE(S): Biostar, Inc., USA
SOURCE: U.S., 71 pp. Cont.-in-part of U.S. Ser. No. 923, 304, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5482830	A	19960109	US 1993-76320	19930610
AU 9179004	A1	19921021	AU 1991-79004	19910320
AU 653940	B2	19941020		
EP 539383	A1	19930505	EP 1991-910056	19910320
EP 539383	B1	19960918		
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05506936	T2	19931007	JP 1991-509344	19910320
JP 3193373	B2	20010730		
ES 2094224	T3	19970116	ES 1991-910056	19910320
JP 2001235473	A2	20010831	JP 2000-287242	19910320
EP 1122539	A2	20010808	EP 2001-111726	19920211
EP 1122539	A3	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC				
EP 1122540	A2	20010808	EP 2001-111727	19920211
EP 1122540	A3	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC				
JP 2002189028	A2	20020705	JP 2001-312846	19920211

US 5468606	A	19951121	US 1992-923304	19920731
US 5639671	A	19970617	US 1995-412600	19950328
US 5955377	A	19990921	US 1995-403565	19950417
JP 10288616	A2	19981027	JP 1998-5911	19980114
JP 2951300	B2	19990920		
JP 2004045421	A2	20040212	JP 2003-323351	20030916

PRIORITY APPLN. INFO.:

US 1986-832682	B2	19860225
US 1988-260317	B2	19881020
US 1989-408291	B2	19890918
US 1989-408296	B2	19890918
US 1991-653052	B2	19910211
US 1991-653064	B2	19910211
US 1992-873097	B2	19920424
US 1992-917121	B2	19920731
US 1992-923304	B2	19920731
JP 1990-513789	A3	19900918
EP 1991-910056	A	19910320
JP 1991-509344	A3	19910320
WO 1991-US1781	A	19910320
EP 1991-308968	A	19911001
EP 1992-906299	A3	19920211
JP 1992-505739	A3	19920211
JP 2001-312846	A3	19920211
US 1992-923048	B2	19920731
US 1992-923090	B2	19920731
US 1993-75693	B1	19930610
US 1993-76319	B1	19930610

AB Device for detecting the presence or amount of an analyte of interest is disclosed. The device has a substrate possessing an optically active surface which exhibits a first color in response to light impinging thereon, and exhibits a second color comprising a combination of wavelengths of light different from the first color or comprising an intensity of at least one wavelength of light different from the first color, in response to the light when the analyte is present on the surface of any amount selected from 0.1 nM, 0.1 ng/mL, 50 fg, and 2+103 organisms comprising the analyte. Chlamydia and human anti-HIV detection are among the examples which are described.

IC ICM G01N033-544
ICS C12Q001-00

NCL 435005000

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 15

ST polymer optical app **immunoassay** analyte detn

IT **Siloxanes and Silicones, uses**
RL: DEV (Device component use); USES (Uses)
(**di-Me**, devices and methods for detection of an analyte based upon light interference)

IT **Immunoassay**
(enzyme-linked immunosorbent assay, devices and methods for detection of an analyte based upon light interference)

IT 75-78-5, Dimethyldichlorosilane 9003-17-2D, Polybutadiene, triethoxysilyl-modified **9003-53-6**, Polystyrene 86091-10-3, PS 076 163442-68-0, Starburst 5th Generation
RL: DEV (Device component use); USES (Uses)
(devices and methods for detection of an analyte based upon light interference)

L29 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:678837 HCAPLUS

DOCUMENT NUMBER: 121:278837
TITLE: Assay for humoral immunity to macromolecules
INVENTOR(S): Nir, Kossovsky
PATENT ASSIGNEE(S): Regents of the University of California, USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9420857	A1	19940915	WO 1994-US2528	19940308
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5798220	A	19980825	US 1995-450860	19950525
PRIORITY APPLN. INFO.:			US 1993-29775 A	19930311

AB Disclosed is an **immunoassay** method using a native macromol. bound to a biomaterial or pharmacol. support surface to screen biol. fluids for antibodies or Igs. to the macromol. in its bound state. The method is also used to screen for immune responses to implanted biomaterials and pharmacol. administered agents where native macromols. which have interacted with the implant are conformationally altered and elicit an immune response. Claimed macromol. is a native cellular structure component, such as plasma protein, a matrix protein, a cell membrane phospholipid, fibrinogen, collagen, fibronectin, laminin, sphingomyelin, and phosphatidylcholine. The claimed support material includes metal, ceramic, polymer, or monomer; more specifically, dimethylpolysiloxane, stainless steel, polytetrafluoroethylene, alumina, zirconia, polyurethane, calcium-phosphate ceramics, cellobiose, trehalose, isomaltose, maltose, nystose, maltotriose and nitrocellulose.

IC ICM G01N033-544
ICS G01N033-551; G01N033-553; G01N033-554; G01N033-555; G01N033-564; G01N033-68

CC 15-1 (Immunochemistry)

IT **Ceramic materials and wares**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(macromol. immobilized on a biomaterial or pharmacol. **support** to screen biol. fluids for antibodies or Igs.)

IT **Siloxanes and Silicones, biological studies**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**di-Me**, macromol. immobilized on a biomaterial or pharmacol. **support** to screen biol. fluids for antibodies or Igs.)

IT **9003-53-6**, Polystyrene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polystyrene as support for immobilized silicone for determination of antibody to silicone breast implant)

L29 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:239633 HCAPLUS
DOCUMENT NUMBER: 120:239633
TITLE: Devices and methods for detection of an analyte based upon light interference

INVENTOR(S): Bogart, Gregory R.; Moddel, Garret R.; Maul, Diana M.; Etter, Jeffrey B.; Crosby, Mark; Miller, John B.; Blessing, James; Kelley, Howard; Sandstrom, Torbjorn; Stiblert, Lars
PATENT ASSIGNEE(S): Biostar, Inc., USA
SOURCE: PCT Int. Appl., 208 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9403774	A1	19940217	WO 1993-US5673	19930610
W: AT, AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9179004	A1	19921021	AU 1991-79004	19910320
AU 653940	B2	19941020		
EP 539383	A1	19930505	EP 1991-910056	19910320
EP 539383	B1	19960918		
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05506936	T2	19931007	JP 1991-509344	19910320
JP 3193373	B2	20010730		
ES 2094224	T3	19970116	ES 1991-910056	19910320
JP 2001235473	A2	20010831	JP 2000-287242	19910320
AU 9345360	A1	19940303	AU 1993-45360	19930610
JP 07509565	T2	19951019	JP 1994-505280	19930610
JP 3506703	B2	20040315		
EP 727038	A1	19960821	EP 1993-915341	19930610
R: ES, FR, GB, IT, SE				
EP 1126278	A2	20010822	EP 2001-108521	19930610
EP 1126278	A3	20011017		
R: ES, FR, GB, IT, SE				
JP 2002116208	A2	20020419	JP 2001-236186	19930610
JP 3507048	B2	20040315		
JP 2002122601	A2	20020426	JP 2001-236166	19930610
JP 2002139498	A2	20020517	JP 2001-236144	19930610
JP 3456984	B2	20031014		
JP 2002122603	A2	20020426	JP 2001-236198	20010803
JP 3547723	B2	20040728		

PRIORITY APPLN. INFO.:		
US 1992-924343	A	19920731
EP 1991-910056	A	19910320
JP 1991-509344	A3	19910320
WO 1991-US1781	A	19910320
EP 1993-915341	A3	19930610
JP 1994-505280	A3	19930610
WO 1993-US5673	W	19930610

AB Methods for analyzing an optical surface for an analyte of interest in a test sample and related instruments/devices are disclosed. The method entails the use of a thin-film optical **immunoassay** device whereby an analyte of interest is detected in a test sample through spectral changes in the light impinging on the surface prior to and after the binding of the analyte to a reactive substrate layer(s). The device includes a substrate which has a 1st color in response to light impinging thereon. The substrate also exhibits a 2nd color which is different from the 1st color. The 2nd color is exhibited in response to the same light when the analyte is present on the surface. Thus, SiO was vapor deposited on a polished monocryst. Si wafer to a thickness of 550 Å; the film

had a golden interference color. The film was activated with N-(2-aminoethyl)-3-aminopropyltrimethoxysilane, coated with a DNP-albumin conjugate to a thickness of 40Å, rinsed, and dried. The coated wafer was used in a competitive **immunoassay** for DNP using goat anti-DNP antibody and an ellipsometer to measure the change in mass at the surface from the change in light intensity.

IC ICM G01B009-02
ICS G01N021-62

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 79, 80

ST interferometry **immunoassay**; ellipsometer analyte adsorption film

IT Escherichia coli
(K1, antibody to, immobilization of, on silicon wafer for **immunoassay**)

IT Birch
(antibodies to pollen of, detection of, by ellipsometric **immunoassay**)

IT Pollen
(antibodies to, of birch, detection of, by ellipsometric **immunoassay**)

IT Haemophilus influenzae
Neisseria meningitidis
Streptococcus pneumoniae
(antibody to, immobilization of, on silicon wafer for **immunoassay**)

IT Autoimmune disease
Hepatitis
(antigens associated with, detection of, by ellipsometric **immunoassay**)

IT Ceramic materials and wares
Glass, oxide
Plastics
RL: ANST (Analytical study)
(attachment layer and optical thin film on substrate of, in interferometer for chemical anal.)

IT Chlamydia
Neoplasm
(detection of, by ellipsometric **immunoassay**)

IT Allergens
Antibodies
Antigens
Rheumatoid factors
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by ellipsometric **immunoassay**)

IT Lipopolysaccharides
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by interferometric **immunoassay**)

IT Siloxanes and Silicones, uses
RL: USES (Uses)
(methylaminopropyl Me, methylphenyl methyldodecyl, attachment layer of, on interferometer for **immunoassay**)

IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(CEA (carcinoembryonic antigen), detection of, by ellipsometric **immunoassay**)

IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(E, detection of, by ellipsometric **immunoassay**)

IT Virus, animal

(Rous sarcoma, detection of, by ellipsometric **immunoassay**)
IT **Immunoassay**
(chemiluminescence, interferometric)
IT Albumins, compounds
RL: PROC (Process)
(conjugates, with DNP, immobilization of, on silanized silicon wafer for competitive **immunoassay** for DNP)
IT **Siloxanes and Silicones, uses**
RL: USES (Uses)
(**di-Me**, attachment layer of, on interferometer for **immunoassay**)
IT **Siloxanes and Silicones, uses**
RL: USES (Uses)
(**di-Me**, di-Ph, attachment layer of, on interferometer for **immunoassay**)
IT **Siloxanes and Silicones, uses**
RL: USES (Uses)
(**di-Me**, mercaptopropyl Me, attachment layer of, on interferometer for **immunoassay**)
IT **Immunoassay**
(enzyme-linked immunosorbent assay, interferometric)
IT **Immunoassay**
(fluorescence, interferometric)
IT Proteins, specific or class
RL: PROC (Process)
(fusion products, of p24 protein and gp41 glycoprotein of HIV, immobilization of, on silicon wafer for **immunoassay**)
IT Glycoproteins, specific or class
RL: PROC (Process)
(gp41, of HIV, immobilization of, on silicon wafer for **immunoassay**)
IT Bacteria
(gram-neg., antigens of, detection of, by interferometric **immunoassay**)
IT Streptococcus
(group A, detection of, by ellipsometric **immunoassay**)
IT Streptococcus
(group B, detection of, by ellipsometric **immunoassay**)
IT Virus, animal
(hepatitis A, detection of, by interferometric **immunoassay**)
IT Virus, animal
(hepatitis B, detection of, by ellipsometric **immunoassay**)
IT Virus, animal
(hepatitis C, detection of, by interferometric **immunoassay**)
IT Virus, animal
(hepatitis D, detection of, by interferometric **immunoassay**)
IT Virus, animal
(hepatitis E, detection of, by interferometric **immunoassay**)
IT Virus, animal
(herpes simplex, detection of, by ellipsometric **immunoassay**)
IT Virus, animal
(human immunodeficiency 1, detection of, by ellipsometric **immunoassay**)
IT Virus, animal
(human immunodeficiency 2, detection of, by ellipsometric **immunoassay**)
IT **Immunoassay**
(interferometric, applications of)
IT Cell wall

(outer membrane, antigens of, of bacteria, detection of, by interferometric **immunoassay**)
IT Microorganism
(pathogenic, detection of, by ellipsometric **immunoassay**)
IT **Immunoassay**
(radioimmunoassay, interferometric)
IT 75-78-5
RL: ANST (Analytical study)
(attachment layer containing silylated PEI and, on interferometer for **immunoassay**)
IT 9002-98-6D, Polyethylenimine, trimethoxysilylpropyl-modified 9003-17-2D, Polybutadiene, triethoxysilyl-modified **9003-53-6**, Polystyrene 144856-48-4, TC 7A
RL: ANST (Analytical study)
(attachment layer of, on interferometer for **immunoassay**)
IT 51-28-5, DNP, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by competitive **immunoassay**, DNP-albumin conjugate immobilization on silanized silicon wafer for)
IT 2508-19-2, Trinitrobenzenesulfonic acid
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by competitive **immunoassay**, hapten-albumin conjugate immobilization on silanized silicon wafer for)
IT 1760-24-3, N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane
RL: ANST (Analytical study)
(silicon wafer activation with, for coating with antibody for **immunoassay**)

L29 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:143012 HCAPLUS
DOCUMENT NUMBER: 118:143012
TITLE: Methods for detecting amphiphilic antigens
INVENTOR(S): Becker, Martin; Kurn, Nurith; Liu, Yen P.; Patel, Rajesh D.; Houts, Thomas M.; Olson, John D.
PATENT ASSIGNEE(S): Syntex (U.S.A.), Inc., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5187066	A	19930216	US 1990-479930	19900214
PRIORITY APPLN. INFO.:			US 1990-479930	19900214

AB Amphiphilic antigens in biol. samples are detected with a method comprising (1) providing in combination a hydrophilic solid support modified to have a hydrophobic surface and an assay medium suspected of containing an amphiphilic antigen, (2) incubating the combination under conditions sufficient for the amphiphilic antigen to bind to the hydrophobic surface, and (3) determining the presence or amount of the amphiphilic antigen bound to the hydrophobic surface. The amphiphilic antigen is e.g. a lipopolysaccharide antigen from a gram-neg. bacterium. The solid support is e.g. silica, polyacrylamide, or glass; the support is modified with C4-20 silanizing agents, alkylating agents, antibacterial polypeptides (e.g. polymyxin B), etc. **Immunoassays** are described which effectively detected amphiphilic antigen from Chlamydia

bound to the hydrophobic surface of e.g. octylamine-polyacrylamide beads. Preparation of a variety of types of beads for the assays is described, as is clin. detection of Chlamydia amphiphilic antigens.

IC ICM C12Q001-00
ICS G01N033-545
NCL 435007360
CC 9-10 (Biochemical Methods)
ST amphiphilic antigen detn immobilization support; octylamine polyacrylamide bead Chlamydia antigen detn; Chlamydia amphiphilic antigen immobilization **immunoassay**; bacteria lipopolysaccharide **immunoassay** antigen immobilization
IT **Immunoassay**
(for amphiphilic antigens, hydrophobic agent-modified hydrophilic support for antigen immobilization in)
IT Alcohols, uses
Alkyl halides
Amines, uses
Silanes
Fatty acids, uses
RL: ANST (Analytical study)
(hydrophilic **support** modified with, for antigen immobilization in amphiphilic antigen determination)
IT **Glass, oxide**
RL: ANST (Analytical study)
(hydrophobic agent-modified, for antigen immobilization in amphiphilic antigen determination)
IT **Silanes**
RL: ANST (Analytical study)
(**alkoxy**, hydrophilic **support** modified with, for antigen immobilization in amphiphilic antigen determination)
IT **Silanes**
RL: ANST (Analytical study)
(alkyl, halo, hydrophilic **support** modified with, for antigen immobilization in amphiphilic antigen determination)
IT 9003-05-8, Polyacrylamide **9003-53-6D**, Polystyrene, sulfonated or carboxylated
RL: ANST (Analytical study)
(hydrophobic agent-modified, for antigen immobilization in amphiphilic antigen determination)

L29 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:3418 HCAPLUS
DOCUMENT NUMBER: 118:3418
TITLE: Ellipsometric **immunoassay** system and method including a thin film detection device
INVENTOR(S): Etter, Jeffrey; Maul, Diana; Bogart, Greg; Zapp, Loretta; Peterson, Tammy
PATENT ASSIGNEE(S): Biostar Medical Products, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9214136	A1	19920820	WO 1992-US809	19920211
W: AU, JP				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE

AU 9179004	A1	19921021	AU 1991-79004	19910320
AU 653940	B2	19941020		
EP 539383	A1	19930505	EP 1991-910056	19910320
EP 539383	B1	19960918		
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05506936	T2	19931007	JP 1991-509344	19910320
JP 3193373	B2	20010730		
ES 2094224	T3	19970116	ES 1991-910056	19910320
JP 2001235473	A2	20010831	JP 2000-287242	19910320
AU 9213776	A1	19920907	AU 1992-13776	19920211
EP 524301	A1	19930127	EP 1992-906299	19920211
EP 524301	B1	20020724		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 05506314	T2	19930916	JP 1992-505739	19920211
EP 1122539	A2	20010808	EP 2001-111726	19920211
EP 1122539	A3	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC				
EP 1122540	A2	20010808	EP 2001-111727	19920211
EP 1122540	A3	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC				
JP 2002189028	A2	20020705	JP 2001-312846	19920211
AT 221194	E	20020815	AT 1992-906299	19920211
ES 2180534	T3	20030216	ES 1992-906299	19920211
HK 1001889	A1	20030321	HK 1998-100895	19980206
JP 2004045421	A2	20040212	JP 2003-323351	20030916

PRIORITY APPLN. INFO.:

US 1991-653064	A	19910211
EP 1991-910056	A	19910320
JP 1991-509344	A3	19910320
WO 1991-US1781	A	19910320
EP 1992-906299	A3	19920211
JP 1992-505739	A3	19920211
JP 2001-312846	A3	19920211
WO 1992-US809	A	19920211

AB Monocryst. Si wafers were coated with Si nitride to 550 Å, with T-polymer siloxane (aminoalkyl T-structure branch point polydimethyl siloxane; the best of the intermediate layer materials tested), and then with rabbit anti-Streptococcus Group A antibody to make an assay device for Streptococcus antigen.

IC ICM G01N021-41
ICS G01N033-543; G01N033-544; G01N033-545; G01N033-551; G01N033-552; G01N033-553

CC 9-10 (Biochemical Methods)

ST ellipsometric **immunoassay** thin film detection app

IT Antibodies
Antigens
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by ellipsometric **immunoassay**, intermediate layer materials in devices for)

IT **Immunoassay**
(apparatus, ellipsometric, thin film on light reflective substrate for, receptive material in)

IT Analysis
Immunoassay
(apparatus, thin film on light reflective substrate for, receptive material in)

IT **Siloxanes and Silicones, uses**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**di-Me**, aminoalkyl T-structure branch point,

intermediate layer containing, in preparation of thin-film detection device for
ellipsometric **immunoassay**)
IT **Siloxanes and Silicones, uses**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**di-Me**, di-Ph, intermediate layer containing, in preparation of thin-film detection device for ellipsometric **immunoassay**)
IT **Siloxanes and Silicones, uses**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**di-Me**, mercaptopropyl Me, intermediate layer containing, in preparation of thin-film detection device for ellipsometric **immunoassay**)
IT Streptococcus
(group A, antigen of, detection of, by ellipsometric **immunoassay**, intermediate layer materials in devices for)
IT 7440-21-3, Silicon, biological studies
RL: BIOL (Biological study)
(as substrate in ellipsometric **immunoassay** device)
IT 75-78-5, Dimethyldichlorosilane 1760-24-3 9003-17-2D, triethoxysilyl-modified **9003-53-6**, Polystyrene 130284-95-6 144856-48-4, TC 7A
RL: ANST (Analytical study)
(intermediate layer containing, in preparation of thin-film detection device for
ellipsometric **immunoassay**)

L29 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:73388 HCAPLUS
DOCUMENT NUMBER: 112:73388
TITLE: Chromatographic stationary phases with affinity, ion-exchange, or hydrophobic surfactants, their preparation, and their use
INVENTOR(S): Carbonell, Ruben G.; Kilpatrick, Peter K.; Torres, Juan Luis; Guzman, Roberto
PATENT ASSIGNEE(S): North Carolina State University, USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 8904203	A1	19890518	WO 1988-US4045		19881110
W: JP, KR					
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE					
CA 1336077	A1	19950627	CA 1988-582777		19881110
US 5045190	A	19910903	US 1990-578888		19900905
PRIORITY APPLN. INFO.:			US 1987-119020	A	19871110
			US 1988-268811	A	19881108

AB Chromatog. apps. (i.e. columns) incorporating an improved means of connecting a ligand to a hydrophobic solid support, e.g. hydrophobic silica particles or hydrophobic polymers, are provided, as are compns. and methods for their preparation Bound to the solid support are surfactants comprising (1) a polar group, (2) a hydrophobic functional group substituted on the polar group, and (3) a chromatog. functional group substituted on the polar group. Preferable polar groups are polyalkoxy groups. The chromatog. functional group is (1) a ligand for affinity

chromatog., (2) an iogenic group for ion-exchange chromatog., or (3) a hydrophobic group for hydrophobic chromatog. Covering surfactants are preferably adsorbed to the solid support to reduce nonspecific binding thereto. The invention provides a means for easily reversibly binding chromatog. functional groups to a solid support. Capacity of the solid support for the chromatog. functional groups is increased. Pyridinium, a specific cholinesterase inhibitor, was coupled to octaethylene glycol mono-n-hexadecyl ether (C16E8) by tresylation of the surfactant followed by nucleophilic substitution with the inhibitor; the product was purified in 71.9% yield by preparative reversed-phase HPLC. To a com. precolumn (2 cm length, 2 mm inside diameter) packed with 0.021 g of Davisil octadecyl-bonded silica (400 Å pore size, 30-40 μm particle size) was applied a 10 μM solution of the C16E8-pyridinium until absorbance at 259 nm was constant The specific adsorption of the affinity surfactant to the reversed-phase material was 0.302 μmol/mg packing. The column was equilibrated with 0.05M Tris-HCl buffer (pH 8.0) containing 0.1M NaCl at a flow rate of 1.0 mL/min. To the column was applied 100 μL of a mixture of horse serum cholinesterase and bovine serum albumin (0.70 mg total protein/mL, 22.1 units enzyme activity/mg). All of the cholinesterase activity was retained; >90% of the cholinesterase activity was recovered by application of a sharp two-minute linear gradient to 0.05M Tris-HCl (pH 9.0) containing 1.0M NaCl. The specific activity of the eluate was 250 units/mg, corresponding to an 11-fold purification The affinity surfactant is easily removed from the column by washing the column with 6:4 MeOH/Me2CHOH.

IC ICM B01D015-08
CC 9-3 (Biochemical Methods)
IT **Siloxanes and Silicones, uses and miscellaneous**
RL: USES (Uses)
(**di-Me**, as **support** for chromatog. stationary phase with affinity or ion-exchange or hydrophobic surfactant)
IT 9002-84-0, Polytetrafluoroethylene 9002-88-4, Polyethylene 9003-07-0, Polypropylene **9003-53-6**, Polystyrene 9003-69-4, Polydivinylbenzene 9011-14-7, Polymethyl methacrylate 25667-42-9
RL: ANST (Analytical study)
(as support for chromatog. stationary phase with affinity or ion-exchange or hydrophobic surfactant)

L29 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1987:139502 HCAPLUS
DOCUMENT NUMBER: 106:139502
TITLE: Radiation grafting of organopolysiloxanes
INVENTOR(S): Dubrow, Robert S.; Uken, William David; Dittmer, Catherine A.
PATENT ASSIGNEE(S): Raychem Corp., USA
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 203737	A2	19861203	EP 1986-303346	19860501
EP 203737	A3	19880601		
EP 203737	B1	19920923		

R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE

BR 8601955	A	19870106	BR 1986-1955		19860430
DK 8602004	A	19861103	DK 1986-2004		19860501
CA 1298566	A1	19920407	CA 1986-508131		19860501
AT 80902	E	19921015	AT 1986-303346		19860501
JP 61276824	A2	19861206	JP 1986-102961		19860502
JP 07084527	B4	19950913			
US 4950546	A	19900821	US 1988-233941		19880818
US 5037667	A	19910806	US 1990-569111		19900817
PRIORITY APPLN. INFO.:			US 1985-730691	A	19850502
			EP 1986-303346	A	19860501
			US 1987-57707	B1	19870601
			US 1988-233941	A3	19880818

AB Organopolysiloxanes are grafted by UV or electron beam irradiation to polymer supports so that the siloxane coating contains 10-90% uncrosslinked portion, and has a cone penetration 100-350 (10-1 mm) and an ultimate elongation ≥100% to give tacky products, useful as permeable protective covers that adhere to articles. Thus, Dow 200 (a dimethylpolysiloxane with viscosity 10,000 cSt) was applied to a polyurethane backing, vacuumed, and irradiated with an electron beam (11 megarads, 3.5 MeV) to give a crosslinked layer of 2 mm thickness with cone penetration 220 (10-1 mm), ultimate elongation 400%, and cohesive failure as peeled from the substrate after 24 h in Me2CO.

IC ICM C08J003-24
ICS C08J007-04; C09J007-02

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37

IT **Siloxanes and Silicones, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**di-Me**, grafting of, to polymer **supports** with partial crosslinking by electron beam, for tacky reusable protective covers)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene **9003-53-6**, Polystyrene 24937-78-8, EVA 24937-79-9, Poly(vinylidene fluoride) 25035-04-5 25038-71-5, Ethylene-tetrafluoroethylene copolymer 25587-80-8, 11-Aminoundecanoic acid polymer
RL: USES (Uses)
(supports, grafting of polysiloxanes to, with partial crosslinking by electron beam, for tacky reusable protective covers)

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=> d que l32
L16        18412 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)(DI
                 METHYL OR DI ME OR DIMETHYL OR DI ALKYL OR DIALKYL OR DI ET OR
                 DI ETHYL OR DIETHYL OR ALKOXY OR METHOXY OR ALKYLTRIALKOXY OR
                 VINYLTRIALKOXY OR PHENYLTRIALKOXY OR PHENYLTRIALKOXY OR
                 OCTADECYLTRIETHOXY OR ?TRIETHOXY?)
L17         2646 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SILANES+PFT/CT(L)(DI METHYL
                 OR DI ME OR DIMETHYL OR DI ALKYL OR DIALKYL OR DI ET OR DI
                 ETHYL OR DIETHYL OR ALKOXY OR METHOXY OR ALKYLTRIALKOXY OR
                 VINYLTRIALKOXY OR PHENYLTRIALKOXY OR PHENYLTRIALKOXY OR
                 OCTADECYLTRIETHOXY OR ?TRIETHOXY?)
L18        20963 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 OR L17
L19       104183 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSTYRENE+PFT,NT/CT
L20       166952 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLASS+PFT/CT
L21        45256 SEA FILE=HCAPLUS ABB=ON  PLU=ON  QUARTZ+PFT/CT
L22         1498 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CERAMICS+PFT/CT(L)SUPPORT
L23         1239 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND (L19 OR L20 OR L21 OR
                 L22)
L24        53238 SEA FILE=HCAPLUS ABB=ON  PLU=ON  IMMUNOASSAY+PFT,NT/CT
L25            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 AND (L24 OR IMMUNOASS? OR
                 ELISA)
L26          529 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)SUPPORT

L27           81 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SILANES+PFT/CT(L)SUPPORT
L28           14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 AND (L26 OR L27)
L29           20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 OR L28
L31           30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GLASS OR QUARTZ OR CERAMIC
                 OR POLYSTYRENE OR STYRENE)(2A)SUPPORT AND L18
L32           22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 NOT L29


=> d l32 ibib abs hitind 1-22

L32  ANSWER 1 OF 22  HCAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:539710  HCAPLUS
DOCUMENT NUMBER:          141:251321
TITLE:                    Improved Surface Chemistries, Thin Film Deposition
                          Techniques, and Stamp Designs for Nanotransfer
                          Printing
AUTHOR(S):                Menard, Etienne; Bilhaut, Lise; Zaumseil, Jana;
                          Rogers, John A.
CORPORATE SOURCE:         Department of Materials Science and Engineering,
                          Department of Chemistry, Beckman Institute and Seitz
                          Materials Research Laboratory, University of Illinois
                          at Urbana/Champaign, Urbana, IL, 61801, USA
SOURCE:                   Langmuir (2004), 20(16), 6871-6878
                          CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER:                American Chemical Society
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Nanotransfer printing represents an additive approach for patterning thin
     layers of solid materials with nanometer resolution  The surface chemistries,
     thin film deposition techniques, and stamp designs are all important for
     the proper operation of this method.  This paper presents some details
     concerning processing procedures and other considerations needed for
     patterning two- and three-dimensional nanostructures with low d. of
     defects and minimal distortions.
CC   74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
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Reprographic Processes)
IT **Polysiloxanes, properties**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(**di-Me**, Me vinyl, VDT 731; fabrication of masters for production of elastomeric stamps for lithog. nanotransfer printing of metal films)
IT **Glass** substrates
(stamp **support**; surface chemical and thin film deposition and stamp designs in lithog. nanotransfer printing of metal films with elastomeric stamp)
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:495540 HCAPLUS
DOCUMENT NUMBER: 141:25740
TITLE: method to produce porous silica films
INVENTOR(S): Shinbo, Toshio; Kanamori, Toshiyuki; Kusumocahyo, Samuel Priyantoro; Sudo, Masao
PATENT ASSIGNEE(S): National Institute of Advanced Industrial Science and Technology, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004168615	A2	20040617	JP 2002-338213	20021121
PRIORITY APPLN. INFO.:			JP 2002-338213	20021121

AB The method includes coating sols obtained by hydrolyzing alkoxy silane and metal alkoxide on a **ceramic support**, coating SiO2 sols obtained by hydrolyzing reactant mixture containing Si(OR)4, where R is C1-8 alkyl, water and HNO3; and calcining at temperature increase/decrease rates at 0.5-2°/min. The porous SiO2 has an average pore diameter of ≥1 nm, and is formed over an intermediate film containing SiO2 and metal oxide on the **ceramic support** selected from ≥1 of Al2O3, SiO2, ZrO2, TiO2, and MgO. The film is useful for separating and filtering liquid like water and organic solvents.
IC ICM C01B033-12
ICS B01D069-12; B01D071-02; C04B041-87; C04B041-89
CC 49-8 (Industrial Inorganic Chemicals)
ST porous silica film intermediate metal oxide **ceramic support**
IT **Silanes**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**alkoxy**; method to produce porous silica films)

L32 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:195584 HCAPLUS
DOCUMENT NUMBER: 140:237871
TITLE: Latent heat-storage material and production of same.
INVENTOR(S): Nagano, Katsunori; Shimakura, Kazumi; Mochida, Toru; Takeda, Kiyoka; Matsuda, Mitsuhiro; Yoshida, Shigeo; Fujita, Takumi
PATENT ASSIGNEE(S): Panahome Corporation, Japan; Dainippon Toryo Co.,

Ltd.; Chiyoda Ute Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004075711	A2	20040311	JP 2002-233677	20020809
PRIORITY APPLN. INFO.:			JP 2002-233677	20020809

AB The title material includes granular/lump-like porous supports impregnated with a latent heat-storage agent, and a nonpermeable enclosure layer of the latter covered thereon. The above stated porous supports can be foamed glass, expanded clay, expanded fly ash, expanded shale, silica shale, foamed polyurethane, foamed phenolic resin, or foamed polystyrene; and they have grain diameter 0.1-15 mm, and sp. gr. 0.25-1.0. The above stated enclosure layer can be acrylic resin, acrylic-urethane resin, acrylic- melamine resin, fluoropolymers, alkoxysilane-containing resin, and/or vinyl resin; and they have thickness 5-70 μm. The latent heat-storage agent can be paraffins, waxes, and/or inorg. salt hydrates; and they have phase-transition temperature - 30° to 200°, and content 29-95 weight% (vs. total quantity of latent heat-storage material).

IC ICM C09K005-06
ICS F28D020-00
CC 48-5 (Unit Operations and Processes)
Section cross-reference(s): 52, 58
IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(**alkoxy**, resin containing, coatings; latent heat-storage material and production of same)
IT Foamed **glass**
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(**supports**; latent heat-storage material and production of same)
IT 9003-53-6, **Polystyrene**
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(foamed, **supports**; latent heat-storage material and production of same)

L32 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:733955 HCAPLUS
DOCUMENT NUMBER: 137:265123
TITLE: Preparation of a water-repelling catalyst layer on a **ceramic** or metal **support**
INVENTOR(S): Bachinger, Patrick; Keppeler, Berthold; Roeser, Thomas; Schmidt, Michael; Nowak, Dagmar
PATENT ASSIGNEE(S): Ballard Power Systems A.-G., Germany
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1243334	A1	20020925	EP 2002-4914	20020305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

DE 10114646	A1	20020926	DE 2001-10114646	20010324
US 2002192515	A1	20021219	US 2002-103126	20020322

PRIORITY APPLN. INFO.: DE 2001-10114646 A 20010324

AB A procedure is disclosed for preparation of a catalyst on a metal or **ceramic support** for a chemical reactor in fuel cell system. A catalyst layer contains ≥1 water-repelling component(s). The latter is(are) deposited together or alternately with the catalyst on the support, or the catalyst layer is provided with a water-repelling top layer. The catalyst has a porosity which allows permeation of gaseous and/or vapor media. The arrangement is suitable for catalytic burners, reforming catalysts, water gas shift reaction catalysts, and catalytically heated heat exchangers in fuel cells.

IC ICM B01J033-00
ICS B01J035-00; B01J037-02; C01B003-32

CC 49-1 (Industrial Inorganic Chemicals)
Section cross-reference(s): 52, 67

IT Polysiloxanes, uses
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(Pactan; water-repelling layer for catalyst on **ceramic** or metal **support** for)

IT Burners
(catalytic; preparation of water-repelling catalyst layer on **ceramic** or metal **support** for)

IT Heat exchangers
(catalytically heated; preparation of water-repelling catalyst layer on **ceramic** or metal **support** for)

IT **Polysiloxanes, uses**
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(**di-Me**, alkylated; water-repelling layer for catalyst on **ceramic** or metal **support** for)

IT Catalysts
Reforming catalysts
Water gas shift reaction catalysts
(preparation of water-repelling catalyst layer on **ceramic** or metal **support**)

IT Fuel cells
(preparation of water-repelling catalyst layer on **ceramic** or metal **support** for)

IT Acrylic polymers, uses
Epoxy resins, uses
Fluoropolymers, uses
Phenolic resins, uses
Polyurethanes, uses
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(water-repelling layer for catalyst on **ceramic** or metal **support** for)

IT Aluminum alloy, base
Copper alloy, base
RL: CAT (Catalyst use); USES (Uses)
(support for catalyst with water-repelling layer on **ceramic** or metal **support**)

IT 7440-06-4, Platinum, uses
RL: CAT (Catalyst use); USES (Uses)
(preparation of catalyst with water-repelling layer on **ceramic** or metal **support**)

IT 1306-38-3, Ceria, uses 1314-23-4, Zirconia, uses 1344-28-1, Alumina, uses 7429-90-5, Aluminum, uses 7440-50-8, Copper, uses 7631-86-9, Silica, uses 12597-68-1, Stainless steel, uses
RL: CAT (Catalyst use); USES (Uses)
(support for catalyst with water-repelling layer on **ceramic** or metal **support**)
IT 9002-84-0, Teflon 30B
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(water-repelling layer for catalyst on **ceramic** or metal **support** for)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:707166 HCAPLUS
DOCUMENT NUMBER: 137:251578
TITLE: Porous gels having good stability for heat insulators
INVENTOR(S): Urata, Takayuki
PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002265286	A2	20020918	JP 2001-64570	20010308
PRIORITY APPLN. INFO.:			JP 2001-64570	20010308

AB The heat insulators are formed by placing a support as the reinforcing material on a sheet, forming sols from alkoxysilane or acid-treated waler **glass** around the **support**, gelling, treating with hydrophobic agent, and dry at or below the critical point and pressure. The support is preferably made glass fibers or resin fibers.
IC ICM C04B038-00
ICS C04B028-24; C04B014-42; C04B016-06; C04B111-40
CC 57-6 (Ceramics)
Section cross-reference(s): 38, 76
IT **Silanes**
RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(**alkoxy**; for forming porous gels having good stability for heat insulators)
IT **Glass** fibers, processes
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(**support**; for forming porous gels having good stability for heat insulators)

L32 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:654944 HCAPLUS
DOCUMENT NUMBER: 137:187675
TITLE: Ceramic-supported polymer pervaporation membrane
INVENTOR(S): Cohen, Yoram
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6440309	B1	20020827	US 2000-573599	20000517

PRIORITY APPLN. INFO.: US 2000-573599 20000517

AB A ceramic-supported polymer membrane is disclosed where a porous **ceramic** membrane **support** of average pore size no larger than 500 Å is activated by attaching a vinyl terminated lower alkoxy silane to the surface of the ceramic membrane pores. The resulting membrane retains at least 10 μmol of the vinyl terminated lower alkoxy silane per square meter of the ceramic membrane surface. A method for optimizing the amount of vinyl lower alkoxy silane reacted with the **ceramic** **support** surface is also disclosed. The large amount of vinyl terminated lower alkoxy silane which is chemical bonded to the surface of the **ceramic** porous **support** produces activated **ceramic** membrane **support** surface which is useful for graft polymerization of vinyl monomers onto the porous **ceramic** membrane **support** surface. A vinyl monomer is then graft polymerized onto the activated membrane. The resulting ceramic-supported polymer membrane is useful for pervaporation separation of liqs. mixts. that are sufficiently different in their vapor pressure.

IC ICM B01D061-36
NCL 210640000
CC 48-1 (Unit Operations and Processes)
Section cross-reference(s): 16, 60, 61
IT **Ceramics**
(**supports**; **ceramic**-supported polymer pervaporation membrane)
IT **Silanes**
RL: DEV (Device component use); USES (Uses)
(vinyl **alkoxy**; ceramic-supported polymer pervaporation membrane)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:173888 HCAPLUS
DOCUMENT NUMBER: 134:209809
TITLE: Gas-separation filters and their manufacture
INVENTOR(S): Yui, Yoshihiro
PATENT ASSIGNEE(S): Kyocera Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001062265	A2	20010313	JP 1999-241714	19990827

PRIORITY APPLN. INFO.: JP 1999-241714 19990827

AB Si alkoxides are hydrolyzed to form precursor sols, coated on **ceramic** porous **supports**, dried, fired at 350-700° to form porous inorg. membranes, and coated(thickness 0.5-2.0 μm) with

corrosion-resistant materials(e.g., Al2O3) to give the title products for separation of, e.g., perfluoro compound gases.

IC ICM B01D069-10
ICS B01D053-22; B01D071-02; B01D071-70; C04B041-85

CC 47-2 (Apparatus and Plant Equipment)

IT **Silanes**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**alkoxy**; in manufacture of gas-separation filters)

L32 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:298417 HCAPLUS
DOCUMENT NUMBER: 130:353430
TITLE: Expandable styrene polymer particles having antibacterial property and expanded moldings for food packaging materials
INVENTOR(S): Yamashita, Masatoshi; Ijiri, Masao
PATENT ASSIGNEE(S): Sekisui Plastics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11124462	A2	19990511	JP 1997-291160	19971023
JP 3306496	B2	20020724		
PRIORITY APPLN. INFO.:			JP 1997-291160	19971023

AB The particles are covered with Me Ph siloxanes and inorg. antibacterial agents which comprise ≥1 metals selected from Ag, Zn, and Cu supported on inorg. supports or mixts. of the metals and the supports. The particles are pre-expanded and then expanded in molds to give the title moldings. Thus, Eslen Beads HDM (expandable styrene polymer beads) was mixed with 0.1 phr Ais (antibacterial agent, Ag and Zn supported on Mg aluminate metasilicate) and 0.02 phr KF 56 (Me Ph siloxane) to give title particles, which were pre-expanded and expanded in a mold to give a foam plate showing good antibacterial property and adhesion between particles.

IC ICM C08J009-224
ICS C08J009-228

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17

ST expandable styrene polymer particle antibacterial agent; polystyrene foam food packaging material antibacterial; silver zinc antibacterial agent polystyrene foam; methyl phenyl siloxane expandable polystyrene particle; magnesium aluminosilicate **support** antibacterial **polystyrene** foam

IT **Polysiloxanes, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(**di-Me**, Me Ph, SH 710; styrene polymer foams for food packaging materials from expandable particles covered with antibacterial agents and polysiloxanes)

L32 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:661947 HCAPLUS
DOCUMENT NUMBER: 129:344320
TITLE: Pressure-sensitive adhesive labels with needless of release paper for thermal printing
INVENTOR(S): Tsukata, Isao; Suzuki, Kenji

PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10273631	A2	19981013	JP 1997-77891	19970328

PRIORITY APPLN. INFO.: JP 1997-77891 19970328

AB The adhesive labels has successively laminated (A) thermal recording layers containing basic dyes and colorants and (B) release agent layers on a side of a **support** and (C) **styrene**-butadiene-based copolymer pressure-sensitive adhesive layers with glass-transition temperature (Tg) over -60° and below -20° on the other side of the support. Thus, a piece of paper was successively laminated with a thermal recording layer containing 3-(N-ethyl-N-isoamyl)amino-6-methyl-7-phenylaminofluoran, 4-hydroxy-4'-isopropyloxydiphenyl sulfone, and 1,2-di(3-methylphenoxy)ethane, a protecting layer containing a acetoacetyl-modified vinyl alc. polymer, kaolin, and Zn stearate, and a release agent layer containing UV 9300 at one side and then laminated with a butadiene-styrene (65/35) copolymer pressure-sensitive adhesive layer (Tg -45°) on the other side to give an adhesive label showing good adhesion to stainless steel sheets and polyethylene sheets and storage stability as rolls.

IC ICM C09J007-02
ICS B41M005-26; C09J109-06

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74

IT **Polysiloxanes, uses**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**di-Me**, Me 2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl, UV 9300, release agent layers; pressure-sensitive adhesive labels with needless of release paper for thermal printing)

L32 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:287385 HCAPLUS
DOCUMENT NUMBER: 129:10763
TITLE: Display devices and their antireflective filters having fluoroalkoxysilane coatings
INVENTOR(S): Kondo, Hirofumi; Hanaoka, Hideaki; Kobayashi, Tomio
PATENT ASSIGNEE(S): Sony Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10120445	A2	19980512	JP 1996-276703	19961018

PRIORITY APPLN. INFO.: JP 1996-276703 19961018

AB The filters comprise glass substrates and (multilayer) antireflective films which are coated with coatings containing alkoxysilanes Rf[COR1R2Si(OR3)3]j (Rf = perfluoropolyether; R1 = bivalent atoms or atomic

groups; R2 = bivalent hydrocarbons; R3 = monovalent hydrocarbons; j = 1,2). The coatings may contain acids, bases, phosphate esters, and/or β-diketones as catalysts. The **glass supports** may be CRT panels. The display filters show good scratch resistance, antifouling property, and wear resistance.

IC ICM C03C017-30
ICS G02B001-11; G02F001-1333; G09F009-00; H01J005-08; H01J029-88

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 42

IT **Silanes**
RL: DEV (Device component use); USES (Uses)
(**alkoxy**, fluorinated; antireflective filters having fluoroalkoxysilane coatings for display devices)

L32 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:66185 HCAPLUS
DOCUMENT NUMBER: 128:116668
TITLE: Composite pervaporation membrane with **ceramic support** structure
PATENT ASSIGNEE(S): Mauz, Matthias, Germany
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19629061	A1	19980122	DE 1996-19629061	19960719
PRIORITY APPLN. INFO.:			DE 1996-19629061	19960719

AB The composite membrane is a pore-free polymer cover layer on a porous **ceramic support** layer having pore size 0.005-0.5 μm. The organic solvent-selective polymer cover layer can be a polydimethylsiloxane, polyamide, or polyether. The sides of the ceramic layer are sealed with an epoxy resin or polyurethane. The membrane has good thermal and chemical stability, and can be used for pervaporation of solvent mixts. in an anal. laboratory, e.g., HPLC solvents. It may be used for hybrid distillation-thermal separation methods.

IC ICM B01D069-12
ICS B01D061-36; B01D001-00; B01D005-00; C07B063-00

CC 47-2 (Apparatus and Plant Equipment)
Section cross-reference(s): 38, 57, 80

ST pervaporation membrane **ceramic support** analytical solvent

IT Ceramic membranes
Solvents
(composite pervaporation membrane with **ceramic support** structure)

IT Polyamides, uses
Polyethers, uses
RL: DEV (Device component use); USES (Uses)
(composite pervaporation membrane with **ceramic support** structure)

IT Epoxy resins, uses
RL: NUU (Other use, unclassified); USES (Uses)
(composite pervaporation membrane with **ceramic support** structure)

IT Polyurethanes, uses
RL: NUU (Other use, unclassified); USES (Uses)
(composite pervaporation membrane with **ceramic support** structure)
IT **Polysiloxanes, uses**
RL: DEV (Device component use); USES (Uses)
(**di-Me**; composite pervaporation membrane with **ceramic support** structure)
IT Pervaporation
(membranes; composite pervaporation membrane with **ceramic support** structure)
IT 56-81-5, Glycerin, properties 64-18-6, Formic acid, properties 67-63-0, Isopropanol, properties 67-64-1, Acetone, properties 77-92-9, Citric acid, properties 141-78-6, Ethyl acetate, properties 7647-01-0, Hydrochloric acid, properties 7664-93-9, Sulfuric acid, properties
RL: PRP (Properties)
(composite pervaporation membrane with **ceramic support** structure)
IT 64-17-5P, Ethanol, preparation 64-19-7P, Acetic acid, preparation 67-56-1P, Methanol, preparation 75-05-8P, Acetonitrile, preparation 142-82-5P, Heptane, preparation 7732-18-5P, Water, preparation
RL: PUR (Purification or recovery); PREP (Preparation)
(composite pervaporation membrane with **ceramic support** structure)

L32 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:385932 HCAPLUS
DOCUMENT NUMBER: 122:134143
TITLE: Preparation of siloxanes using heterogeneous catalyst on monolithic support
INVENTOR(S): Kolaczkowski, Stanislaw T.; Serbetcioglu, Serpil
PATENT ASSIGNEE(S): Dow Corning Ltd., UK
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 605143	A2	19940706	EP 1993-310115	19931215
EP 605143	A3	19941012		
R: DE, FR, GB				
JP 06234856	A2	19940823	JP 1993-337137	19931228
PRIORITY APPLN. INFO.:			GB 1992-27153 A	19921231

AB Siloxanes are prepared by condensation, addition, or equilibration polymerization of monomeric and/or oligomeric organosilicon compds. (e.g., silanol-terminated di-Me siloxane) using a heterogeneous polymerization catalyst (K3PO4) on a monolithic **support**, especially a **ceramic** material, in a spinning basket system in a semi-batch process or in a single-channel trickle-flow reactor. The process gives a high reaction rate and/or a high throughput rate.
IC ICM C08G077-08
CC 35-3 (Chemistry of Synthetic High Polymers)
ST siloxane manuf catalyst monolithic support; potassium phosphate catalyst siloxane manuf; **ceramic support** catalyst siloxane

manuf; polymn catalyst support siloxane manuf
IT **Siloxanes and Silicones, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-Me, hydroxy-terminated, oligomeric; polymerization with catalyst on monolithic support)

L32 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:324826 HCAPLUS
DOCUMENT NUMBER: 120:324826
TITLE: Surface fluorination of poly(phenylene oxide) composite membranes. Part I. Transport properties
AUTHOR(S): Le Roux, J. D.; Paul, D. R.; Kampa, J.; Lagow, R. J.
CORPORATE SOURCE: Cent. Polym. Res., Univ. Texas, Austin, TX, 78712, USA
SOURCE: Journal of Membrane Science (1994), 90(1-2), 21-35
CODEN: JMESDO; ISSN: 0376-7388
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effect of surface fluorination on the gas transport properties of composite membranes, comprising an inert porous **ceramic support** and a selective layer consisting of poly(phenylene oxide), was examined A small reactor volume permitted the treatment time and the F feed concentration to be investigated independently. The gas transport properties of the treated membranes were evaluated for 6 gases (N, O, CH4, H, He and CO2), in terms of permeance (P/L or pressure-normalized flux) and the ideal selectivity for 8 pairs of these gases. It was generally found that fluorination at different F feed concns. and reaction times reduced the permeance of all the gases. The permeance of the lighter gases (He and H) was reduced by a smaller factor than that of the heavier gases (N and CH4). Fluorination increased the selectivity of He and H relative to N or CH4 by a small factor, but reduced the selectivity of O and CO2 relative to N or CH4. When the membranes were coated with a layer of poly(dimethylsiloxane) (PDMS) subsequent to fluorination, the permeance decreased, considerably more for N and CH4 than for the other gases. Surface coating also substantially increased the selectivities of all the gas pairs. The largest gains in selectivity after fluorination and coating were found at the higher concentration (0.1% F) and intermediate treatment times of 3-5 min. Based on these results, surface coating with PDMS is recommended as a posttreatment step in the fluorination process.
CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 38
IT **Siloxanes and Silicones, miscellaneous**
RL: MSC (Miscellaneous)
(di-Me, fluoronated PPO composite membranes coated with, gas transport properties in relation to)

L32 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:84348 HCAPLUS
DOCUMENT NUMBER: 120:84348
TITLE: Manufacture of high-temperature-resistant glass, and the glass obtained and its use
INVENTOR(S): Mennig, Martin; Jonschker, Gerhard; Schmidt, Helmut
PATENT ASSIGNEE(S): Institut fuer neue Materialien Gemeinnuetzige GmbH
Universitaet des Saarlandes, Germany
SOURCE: Ger. Offen., 5 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4217432	A1	19931202	DE 1992-4217432	19920526
WO 9324424	A1	19931209	WO 1993-EP484	19930303
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 642475	A1	19950315	EP 1993-905292	19930303
EP 642475	B1	19960619		
R: BE, DE, FR, GB, IT, NL, SE				
JP 07507261	T2	19950810	JP 1994-500109	19930303
JP 3401570	B2	20030428		
US 5716424	A	19980210	US 1994-338516	19941209
PRIORITY APPLN. INFO.:			DE 1992-4217432 A	19920526
			WO 1993-EP484 W	19930303

OTHER SOURCE(S): MARPAT 120:84348

AB In this process, comprising (a) providing **glass supports** with a coating obtained by hydrolysis and condensation of ≥1 liquid and/or dissolved compds. of ≥1 of Si, Al, Ti, and Zr and/or their condensates, optionally in combination with ≥1 soluble alkali metal compds., alkaline earth compds., B compds., and, optionally a condensation catalyst, and heat-treating the coating, the coating is not completely densified. This method increases the viscosity on the outside of the glass; the glass is especially suitable for use as furnace windows, fire-resistant windows, optical glass, and containers for chems. The starting materials comprise ≥1 compds. having general formula $Si(OR)_4$ (R = C1-6-alkyl, especially C1-4-alkyl) and ≥1 compds. having general formula $R'Si(OR)_3$ (R' = R or C6-14-aryl, especially Ph).

IC ICM C03C017-25
ICS C03C003-04; C03C004-20; G02B001-00; E04B001-94

CC 57-1 (Ceramics)

IT **Silanes**
RL: USES (Uses)
(**alkoxy**, solns. containing, in silica and silica-titania and silica-zirconia coating formation on glass by hydrolysis and condensation, for high-temperature resistance)

L32 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:519019 HCAPLUS
DOCUMENT NUMBER: 119:119019
TITLE: Rendering nylon membranes transparent by silicone oil solutions
INVENTOR(S): Ohgane, Atsushi; Yamamoto, Kenji; Yuda, Kouji; Fujimiya, Hitoshi; Nasu, Hisanori
PATENT ASSIGNEE(S): Hitachi Software Engineering Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 523457	A1	19930120	EP 1992-111197	19920702
R: DE, FR, GB, SE				
JP 05010885	A2	19930119	JP 1991-161653	19910702
JP 2592016	B2	19970319		
PRIORITY APPLN. INFO.:			JP 1991-161653 A	19910702

AB Nylon membranes, on which a sample DNA has been transcribed, are rendered transparent by impregnation with a clarifying solution containing silicone oil having an optical refraction index substantially identical to or similar to that of the Nylon membrane. The treated Nylon membrane filter is placed between two sheets of **glass support** plate panels and the pattern of the sample transcribed on the Nylon membrane filter can be read with high sensitivity.

IC ICM C08J007-00
ICS C12Q001-68

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 6

IT **Siloxanes and Silicones, uses**
RL: USES (Uses)
(**di-Me**, clarifying solution containing, for polyamide membranes)

L32 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:556778 HCAPLUS
DOCUMENT NUMBER: 117:156778
TITLE: Catalytic converter for exhaust gas treatment
INVENTOR(S): Maki, Masao; Kusuki, Shigeru; Matsumoto, Ikuo; Tabata, Kenji; Komai, Yukiro; Iijima, Takashi
PATENT ASSIGNEE(S): Matsushita Denki Sangyo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04083514	A2	19920317	JP 1990-197248	19900725
PRIORITY APPLN. INFO.:			JP 1990-197248	19900725

AB The catalytic converter for removing CO, NOx, and hydrocarbons from exhaust gases comprises an elec. conductive woven fiber mat made of organometallic compound polymer containing Si, Ti, C, and O in a cylindrical metal housing, a metallic or refractory **ceramic support** layer on the fiber mat surface, a monolithic catalyst bed containing ≥1 Pt-group metal loaded on the support in the flue gas passage, a microwave heater for rapidly increasing the catalyst bed temperature, and optionally means for optimizing the time required for microwave applied to the catalyst bed. The elec. conductive woven fiber is preferably made of polytitanosilane and has an average diameter of ≤10 μm, a sp. elec. resistance of <500 Ω.cm, and a tensile strength of .apprx.280 kg/mm2.

IC ICM B01D053-36
ICS B01D053-36; B01J035-02; B01J035-06

CC 59-3 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 67

IT **Siloxanes and Silicones, compounds**
RL: USES (Uses)
(**di-Me**, polymers, with titanium alkoxides, woven fiber mat, metallic or refractory ceramic coating on, monolithic supports from, in catalytic converter for exhaust gas treatment)

L32 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:451430 HCAPLUS

DOCUMENT NUMBER: 117:51430
TITLE: Manufacture of acid-resistant composite inorganic membranes
INVENTOR(S): Asae, Masaji; Takeuchi, Yoshiyuki
PATENT ASSIGNEE(S): Mitsubishi Jukogyo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04063119	A2	19920228	JP 1990-172639	19900702
JP 2808479	B2	19981008		
PRIORITY APPLN. INFO.:			JP 1990-172639	19900702

AB The composite membranes, having silica gel supported in fine pores of inorg. porous substrates (e.g., ceramics), are manufactured by supporting ethoxy- and methoxy-containing alkoxysilanes in the substrates and hydrolyzing as follows: (1) preparing silica sols A, B and C at boiling temps. .apprx.25, .apprx.20 and .apprx.15 min, resp., from a mixture containing alkoxysilanes, water 0.5-2.0, and acid catalysts 0.01-0.1 (weight ratio alkoxysilane-basis); (2) preparing silica sol D from a mixture containing alkoxysilane, water 2.0-50, and acid catalyst 0.01-0.5 (weight ratio alkoxysilane-basis); and (3) successively loading and firing the silica sols A, B, C and D by the following steps: (a) loading a silica sol on a substrate, (b) successively firing at 200°, 300°, 400° and 500° for 5-15 min, resp., and (c) repeating steps (a) and (b) with the sol for 2-3 times. The composite membranes are used for selective separation of water from mixts. containing organic acids and water.

IC ICM B01D071-02
CC 47-2 (Apparatus and Plant Equipment)
Section cross-reference(s): 49
ST inorg composite membrane acid resistance; org acid water sepn membrane; silica membrane **ceramic support**
IT Silica gel, uses
RL: USES (Uses)
(composite membranes containing porous **ceramic supports** and, for water-organic acid separation)
IT Carboxylic acids, preparation
RL: PREP (Preparation)
(separation of, from water, composite membrane containing silica gel and porous **ceramic support** for)
IT **Silanes**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**alkoxy**, hydrolysis of, in porous ceramic substrates, for composite membranes, for water-organic acid separation)

L32 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:212734 HCAPLUS
DOCUMENT NUMBER: 114:212734
TITLE: Preparation of ceramic-forming prepreg tape
INVENTOR(S): Brungardt, Clement Linus
PATENT ASSIGNEE(S): Hercules Inc., USA
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 421418	A2	19910410	EP 1990-119035	19901004
EP 421418	A3	19910605		
EP 421418	B1	19930825		
R: DE, FR, GB, SE				
CA 2025265	C	20000314	CA 1990-2025265	19900913
JP 03126654	A2	19910529	JP 1990-268286	19901005
JP 3090462	B2	20000918		
US 5714025	A	19980203	US 1995-481980	19950607
PRIORITY APPLN. INFO.:			US 1989-417627 A	19891005
			US 1991-699535 B1	19910514
			US 1993-71633 B1	19930601
			US 1994-284912 B1	19940803

AB A tacky, drapeable ceramic-forming sheet is prepared by: dispersing a ceramic-forming powder and a fiber in water, flocculating the dispersion by a cationic wet strength resin and an anionic polymer, dewatering the flocculating dispersion to form a sheet, wet pressing and drying the sheet, and coating or impregnating the sheet with a ceramic-forming adhesive that is a polymeric ceramic precursor or with a dispersion of an organic binder and the materials used to form the sheet. The sheets can be stacked on top of one another to form laminates which are then fired to consolidate the sheets to a ceramic. Ceramics formed by this method can be used to prepare capacitors, heat exchangers, filters, and catalyst supports.

IC ICM C04B035-80
ICS B32B018-00; D21H027-00
CC 57-2 (Ceramics)
ST sheet ceramic forming manuf; adhesive ceramic forming sheet; capacitor ceramic forming sheet; heat exchanger ceramic forming sheet; filter ceramic forming sheet; catalyst **support ceramic** forming sheet
IT **Siloxanes and Silicones, uses and miscellaneous**
RL: USES (Uses)
(**di-Me**, adhesives, ceramic-forming prepreg tape coated with, manufacture of)

L32 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:11498 HCAPLUS
DOCUMENT NUMBER: 114:11498
TITLE: Pretreatment agents for flue gases
INVENTOR(S): Sakura, Makoto; Matsudaira, Mitsuru
PATENT ASSIGNEE(S): Nikki-Universal Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02184340	A2	19900718	JP 1989-3736	19890112
JP 2794432	B2	19980903		

PRIORITY APPLN. INFO.: JP 1989-3736 19890112
AB To prevent catalyst poisoning, the flue gases are preferably contacted with a pretreatment agent containing active Mn oxides to remove gaseous poisons (e.g., organic Si compds.) prior to passing through the catalyst beds. The active Mn oxides are preferably loaded on a **ceramic** honeycomb **support** having a 3-dimensional network structure (pore diameter ≥5000 Å, pore volume ≥0.1 cm3/g).
IC ICM B01J023-34
ICS B01D053-36; B01J032-00; B01J035-04
CC 59-4 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 67
IT **Siloxanes and Silicones, uses and miscellaneous**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(**di-Me**, catalyst poisoning by, prevention of, in flue gas treatment, active manganese oxide-containing pretreatment agent for)

L32 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:78223 HCAPLUS
DOCUMENT NUMBER: 110:78223
TITLE: Hollow-fiber membrane module for gas separation
INVENTOR(S): Nagarego, Jiro; Ohira, Kazuaki; Nakada, Yoshiro
PATENT ASSIGNEE(S): Sanyo Chemical Industries Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63205118	A2	19880824	JP 1987-36743	19870218

PRIORITY APPLN. INFO.: JP 1987-36743 19870218
AB The module comprises >1 porous **ceramic support** plates, each having 2 hollow-fiber membranes, a filtrate spacer layer between the membranes and bonded with 2 adhesive layers, and 2 retentate layers on the opposite side of the membranes from the adhesive layers. The porous membranes are preferably made of polydimethylsiloxane and polytrimethylsilylpropene. The module reduces pressure loss and can be used in the O enrichment from air.
IC ICM B01D053-22
CC 47-2 (Apparatus and Plant Equipment)
IT **Siloxanes and Silicones, uses and miscellaneous**
RL: USES (Uses)
(**di-Me**, poly-, membranes, hollow-fiber, for gas separation)

L32 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1982:190584 HCAPLUS
DOCUMENT NUMBER: 96:190584
TITLE: The photochemical lithography of silicone elastomers
AUTHOR(S): Martin, G. C.; Su, T. T.; Kornreich, P.; Kowel, S. T.
CORPORATE SOURCE: Syracuse Univ., Syracuse, NY, 13210, USA
SOURCE: Organic Coatings and Plastics Chemistry (1980), 43, 390-4
CODEN: OCPCDG; ISSN: 0161-214X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structure and properties of crosslinked Si polymers and their application as microelectronic components were explored. A two-dimensional array was constructed consisting of a metal film overlaid with a deformable polymer network and a reflective metal film. The structure was used as a storage or deformable component under both static and dynamic conditions. The fabrication of silicone elastomer patterns consisted of coating of a **glass support** with a photoresist pattern, metalization of the photoresist pattern, casting, curing and development of the silicone elastomer, and the metalization of the elastomer surface.

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

IT **Siloxanes and Silicones, uses and miscellaneous**
RL: USES (Uses)
(**di-Me**, photochem. lithog. of)

L32 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1981:165740 HCAPLUS
DOCUMENT NUMBER: 94:165740
TITLE: Optical recording member with a thin layer of an optical dielectric material and a thin layer of tellurium on the dielectric layer
INVENTOR(S): Ward, Anthony T.; Smith, Thomas W.
PATENT ASSIGNEE(S): Xerox Corp., USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 23809	A1	19810211	EP 1980-302556	19800725
R: DE, GB, NL				
JP 56021893	A2	19810228	JP 1980-98629	19800718
PRIORITY APPLN. INFO.:			US 1979-61562 A	19790727

AB A laser radiation-sensitive assembly for storage and retrieval of information uses a thickness of optical dielec. and recording (Te) layers to obtain antireflection conditions at the marking wavelength and optical contrast between the marked and unmarked areas at the reading wavelength. Thus, a recording assembly comprised of a **glass support** coated successively with an Al layer (2000 Å), polystyrene (3900 Å), and polycryst. Te (65-75 Å) showed a 3-5 fold improvement in threshold sensitivity as compared to a standard optical disk of 150 Å Te layer on poly(Me methacrylate).

IC G11B007-24; G11B007-00; B41M005-24

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT **Siloxanes and Silicones, uses and miscellaneous**
RL: USES (Uses)
(**di-Me**, subbing layers, in tellurium-based laser optical recording materials)

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=> d que
L16        18412 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)(DI
                 METHYL OR DI ME OR DIMETHYL OR DI ALKYL OR DIALKYL OR DI ET OR
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                 OCTADECYLTRIETHOXY OR ?TRIETHOXY?)
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L18        20963 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 OR L17
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L36            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SODIUM DODECYL SULFATE/CN
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                 ACID/CN
L38            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPALMITOYLPHOSPHATIDYLSERINE
                 /CN
L39            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PERSOFT EL/CN
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                 NES/CN
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                 /CN
L46            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TWEEN 20/CN
L47            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TWEEN 40/CN
L48            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TWEEN 60/CN
L49           17 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR
                 L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR
                 L46 OR L47 OR L48)
L50            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ALKYLPOLYOXYETHYLENE ETHER?
L51          461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SORBITAN(2A)ETHER
L52            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ALKYLPHENYLPOLYOXY?(1A)?ETHER?

L53        60381 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L49 OR (L50 OR L51 OR L52)
L54       115454 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SURFACTANTS+PFT/CT
L55         1734 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND (L49 OR (L50 OR L51
                 OR L52 OR L53 OR L54))
L57          418 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L18 AND L49
L61            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L57 AND SUPPORT
L63            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 AND (L24 OR ?ASSAY?)
L64           15 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L61 OR L63


=> d l64 ibib abs hitind 1-15

L64  ANSWER 1 OF 15  HCAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2001:854984  HCAPLUS
DOCUMENT NUMBER:          136:81673
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TITLE: Small-Angle Neutron Scattering by Highly Oriented Hybrid Bilayer Membranes Confined in Anisotropic Porous Alumina
AUTHOR(S): Marchal, Damien; Bourdillon, Christian; Deme, Bruno
CORPORATE SOURCE: Laboratoire d'Electrochimie Moleculaire, UMR 7591, Universite Paris 7 Denis Diderot-CNRS, Paris, 75251, Fr.
SOURCE: Langmuir (2001), 17(26), 8313-8320
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Small-angle neutron scattering (SANS) is used to characterize a phospholipid/alkoxysilane hybrid bilayer membrane (HBM), a model of biol. membrane, supported in anisotropic porous alumina (Al2O3). The bilayer is obtained by fusion of phospholipid vesicles with a hydrophobic alkoxysilane monolayer chemical bound to the microporous alumina **support**. We first characterized the bare alumina material, then the alkoxysilane (OTS) layer bound to alumina, and finally the hybrid bilayer. By orienting the anisotropic **support**, we show that the intensity can be considerably increased, enabling the scattering to be measured in a wide q range (6 + 10-4 - 0.5 Å-1) corresponding to 9-10 decades in intensity and down to 10-4 cm-1. This enables us to cover the structure factor of the oxide at large scale, the wide Porod regime, and the membrane form factor. Anal. of the scattering curves indicates that both the OTS layer and the HBM produce very smooth, uniform, and continuous layers at the alumina/solvent interface. This new approach in the characterization by SANS of a supported membrane in a porous material provides information on the homogeneity, the specific area, the roughness, and the thickness of the bilayer.

CC 6-6 (General Biochemistry)
Section cross-reference(s): 66

IT **Silanes**
RL: BSU (Biological study, unclassified); NUU (Other use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(**alkoxy**; small-angle neutron scattering by highly oriented hybrid bilayer membranes confined in anisotropic porous alumina)

IT **18194-24-6**, Dimyristoylphosphatidylcholine
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(small-angle neutron scattering by highly oriented hybrid bilayer membranes confined in anisotropic porous alumina)

IT 1344-28-1, Aluminum oxide (Al2O3), properties
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(**support**; small-angle neutron scattering by highly oriented hybrid bilayer membranes confined in anisotropic porous alumina)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:645589 HCAPLUS
DOCUMENT NUMBER: 135:207839
TITLE: Analytical **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity
INVENTOR(S): Chu, Albert E.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 15 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6284194	B1	20010904	US 1998-38796	19980311
US 2001055542	A1	20011227	US 2001-904453	20010711
US 6558959	B2	20030506		

PRIORITY APPLN. INFO.: US 1998-38796 XX 19980311

AB An anal. device comprising a surfactant-treated porous reaction membrane having an exposed sample-contacting surface and at least one receptor area located in a limited region of the exposed sample-contacting surface. The limited region has a higher concentration of surfactant than areas of the sample-contacting surface that are peripheral to the limited region. To make the device, a surfactant-containing solution comprising at least 0.2 surfactant is added to the reaction membrane and allowed to dry. Then, a receptor reagent is added to a limited region of the reaction membrane. In the **assay**, the surfactant causes the liquid sample to flow faster through the portion(s) of the reaction membrane where receptor mols. are located.

IC ICM G01N033-553
NCL 422055000
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 10, 14, 15
ST analytical **assay** device surfactant membrane
IT Proteins, specific or class
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(A; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
IT Sulfonic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(C14-16-1-alkenesulfonic, sodium salts; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
IT Molecules
(Light emitting labeled; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
IT Membranes, nonbiological
(Porous reaction; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
IT Absorbents
Analytical apparatus
Chemiluminescent substances
Clinical analyzers
Concentration (condition)
Cytomegalovirus
Detergents
Drying
Flow
Fluids
Human immunodeficiency virus
Human immunodeficiency virus 1
Human immunodeficiency virus 2
Immunoassay
Interface
Luminescence, chemiluminescence
Molecular weight

Samples
Solutions
Solvents
Surfactants
Temperature
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Antigens
RL: ANT (Analyte); ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Antibodies
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Reagents
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Receptors
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Proteins, general, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Polyoxyalkylenes, uses
RL: NUU (Other use, unclassified); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Salts, uses
RL: NUU (Other use, unclassified); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT **Surfactants**
(anionic; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Polyoxyalkylenes, uses
RL: NUU (Other use, unclassified); USES (Uses)
(di-Me, Me hydrogen polysiloxane-; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(**di-Me**, Me hydrogen, polyoxyalkylene-; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Samples
(liquid; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT Mixing
(stirring; anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)

IT 7440-57-5, Colloidal Gold, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
IT 9004-70-0, Nitrocellulose
RL: DEV (Device component use); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
IT 81-25-4, Cholic acid 137-20-2 **361-09-1**, Sodium cholate 2235-54-3, Ammonium lauryl sulfate 3198-32-1D, Benzene sulfonate, alkyl, uses 9002-92-0, brij 35 9002-93-1, triton x-305 **9005-64-5**, tween 20 9036-19-5, Octyl phenoxypolyethoxy ethanol 25322-68-3 106392-12-5, pluronic l64 188309-93-5, chemal la9
RL: NUU (Other use, unclassified); USES (Uses)
(anal. **assay** device and methods using surfactant treated membranes to increase **assay** sensitivity)
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:519353 HCAPLUS
DOCUMENT NUMBER: 135:101353
TITLE: Method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce a high squareness ratio
INVENTOR(S): Komatsu, Kazunori; Shibata, Norio
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6261647	B1	20010717	US 1996-591037	19960125
PRIORITY APPLN. INFO.:			JP 1995-15152 A	19950102

AB A method for manufacturing a magnetic recording medium includes steps of forming a magnetic layer containing magnetic powder particles on a web-like nonmagnetic **support** being continuously transported in one direction and applying a magnetic field to the magnetic layer by a plurality of magnets in such a manner that an angle of the magnetic field applied to the magnetic layer to the transporting direction of the nonmagnetic **support** in a plane perpendicular to a surface of the magnetic layer and parallel to the transporting direction of the nonmagnetic **support** gradually increases in the transporting direction of the nonmagnetic **support**, thereby orienting the magnetic powder particles in an oblique direction with respect to the surface of the magnetic layer. It is possible to orient magnetic powder particles in a desired direction with respect to the surface of a magnetic layer and to manufacture a magnetic recording medium having a high squareness ratio without increasing the size of the apparatus
IC ICM H01F001-00
NCL 427549000
CC 77-8 (Magnetic Phenomena)
IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(3-[(2-aminoethyl)amino]propyl Me, **di-Me**, KF 857;

method and coating apparatus for manufacturing magnetic recording medium with
oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, 3-(glycidyloxy)propyl Me, KF 101; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, Me (7-oxabicyclo[4.1.0]hept-3-yl)alkyl, KF 103; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, Me 1-methyl-2-phenylethyl, KF 410; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, Me Ph, KF 56; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, aminopropyl group-containing, KF 865; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, carboxy-containing, X 22-3715; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, epoxy, KF 102; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, fluoroalkyl Me, X 22-819; method and coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**di-Me**, mercaptopropyl Me, X 22-980; method and

coating apparatus for manufacturing magnetic recording medium with oriented particles to produce high squareness ratio)

IT 57-10-3, NAA 160, processes 106-18-3, Butyl laurate 106-83-2, Sansocizer E 4030 112-00-5, Cation BB **112-03-8**, Cation AB 112-53-8, NAA 42 112-80-1, NAA 35, processes 112-86-7, Erucic acid 123-95-5, Butyl stearate 301-02-0, Armoslip CP 334-48-5, NAA 102 544-63-8, NAA 142, processes 1338-39-2, Nonion LP 20R 1338-41-6, Nonion SP 60R 1338-43-8, Nonion OP 80R 2016-54-8, Cation MA 2190-04-7, Cation SA 6843-97-6, Anon LG 9002-92-0, Nonion K 204 9004-81-3, Nonion L 2 9004-95-9, Nonion P 208 9005-02-1, Ionet DL 200 9005-07-6, Ionet DO 200 9005-12-3, KF 50 **9005-64-5**, Nonion LT 221 9005-65-6, Nonion OT 221 9010-76-8, Saran F 310 9036-19-5, Nonion HS 206 25038-59-9, Polyethylene terephthalate, processes 26266-57-9, Nonion PP 40R 26266-58-0, Nonion OP 85R 26635-92-7, Nymeen S 202 42557-11-9, KF 54 50660-45-2, Ucar VAGF 59977-83-2, Pandex T-5105 77907-80-3, Nippollan 2301 82600-65-5, Crisvon 7209 93196-90-8, T 1 (conductor) 97621-80-2, Crisvon 6109 99550-86-4, KF 851 106392-12-5, Newpol PE 61 106856-89-7, Paphen PKFE 119792-15-3, NS-3Y 119792-16-4, NS-8Y 121631-01-4, Tipaque FT 1000 122783-89-5, ECT-52 122784-88-7, S 1 (titanium compound) 123515-60-6, Nippollan 2302 125054-40-2, Tipaque SN 100 126465-54-1, Vylon UR 8300 127475-73-4, Vylon UR 8200 127670-09-1, Denka Vinyl 1000W 129406-57-1, Geon MR 110 145266-46-2, RV530 152287-44-0, NAA44 158688-16-5, KF 393 161936-59-0, MR 100 161937-06-0, UR 8600 168679-33-2, MPR-TMF 169313-49-9, Tipaque FT 2000 202538-04-3, NAA-174 204019-56-7, M 1 (oxide) 211738-34-0, Vylon UR 5500 294175-72-7, ZA-G1 294183-19-0, XYSG 294183-79-2, MPR-TAL 294184-10-4, Denka DX 80 294184-12-6, Denka DX 82 294184-13-7, Denka DX 83 294188-90-2, Daiphelamin 5020 294188-91-3, Daiphelamin 5100 294188-92-4, Daiphelamin 5300 294188-94-6, Daiphelamin 9020 294188-95-7, Daiphelamin 9022 294189-06-3, Daiphelamin 7020 294189-19-8, Burnock D 400 294189-23-4, MX5004 294189-24-5, Sanprene SP 150 294189-27-8, Saran F 210 294203-15-9, NAA-173K 294203-85-3, Nonion DS 294203-87-5, FAL-205 294203-88-6, FAL-123 294204-11-8, NJLUB LO 294204-31-2, NJLUB IPM 294206-87-4, TA 3 (lubricant) 294209-48-6, KF-420 294662-61-6, Armid P 294662-63-8, BA-41G 324745-01-9, KF-700 339537-56-3, Vylon RV 280 349140-71-2, UA 5600 349141-04-4, TF 120 (oxide) 349141-51-1, TF 140 (oxide) 349146-92-5, NS 0 349147-73-5, Burnock D 210-80 349147-96-2, Daiphelamin 4020 374712-25-1, Tipaque TTO 55S 422277-88-1, Tipaque TTO 55A 668492-45-3, TTO 51B 668492-47-5, TTO 55C
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(method and coating apparatus for manufacturing magnetic recording medium with
oriented particles to produce high squareness ratio)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

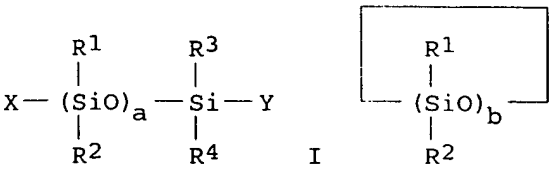
L64 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:382090 HCAPLUS
DOCUMENT NUMBER: 135:57138
TITLE: Effect of surfactants on honey bee survival
AUTHOR(S): Goodwin, R. M.; McBrydie, H. M.
CORPORATE SOURCE: Ruakura Research Centre, The Horticulture and Food Research Institute of New Zealand Ltd, Hamilton, N. Z.
SOURCE: Proceedings of the New Zealand Plant Protection Conference (2000), 53, 230-234
CODEN: PNZCEJ; ISSN: 1172-0719
PUBLISHER: New Zealand Plant Protection Society

DOCUMENT TYPE: Journal
LANGUAGE: English
AB The toxicity of surfactants applied topically and orally to honey bees (Apis mellifera L.) was determined by laboratory **bioassays**. Eleven surfactants (Citowett, Pulse, Boost, Codacide oil, Contact, Raingard, Peptoil, Sunspray, Ethokem, Multifilm and Uptake) were applied topically to anoxiated bees. Anoxiating bees and spraying them with water had no significant effect on their survival. Four surfactants (Citowett, Pulse, Boost and Ethokem) were toxic when applied topically. Ethokem and Boost also showed oral toxicity. Field trials are necessary to assess the actual impact of surfactants. As some surfactants were demonstrated to be toxic to bees in laboratory trials, which suggests they may be toxic when used in the field, they should go through the agrochem. registration process and honey bee warning labels should be included where appropriate.
CC 4-4 (Toxicology)
Section cross-reference(s): 5, 46
IT **Polysiloxanes, biological studies**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(**di-Me**, polyoxyalkylene-, Pulse; toxicity to honeybee)
IT **Surfactants**
(effect on honey bee survival)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:12734 HCAPLUS
DOCUMENT NUMBER: 134:68442
TITLE: Carrier **support** for **immunoassay**, and its use for solid phase for **immunoassay**
INVENTOR(S): Kumazawa, Toshiaki; Tagami, Hiroaki; Kiya, Yoshiyasu; Yokohama, Hiroaki; Mori, Hideharu; Matsumori, Shigeru
PATENT ASSIGNEE(S): Kyowa Medex Co., Ltd., Japan
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001145	A1	20010104	WO 1999-JP3427	19990625
W: AU, BG, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2377946	AA	20010104	CA 1999-2377946	19990625
AU 9942897	A1	20010131	AU 1999-42897	19990625
EP 1202063	A1	20020502	EP 1999-973928	19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRIORITY APPLN. INFO.:			WO 1999-JP3427 W	19990625

GI



I II

AB A newly developed carrier **support** for **immunoassay** is usable regardless of glass fiber composition, and is capable of improving the measurement sensitivity in comparison with the conventional carrier **support** using glass fiber. The carrier **support** is composed of, at least on its surface, a silicon compound (e.g., dialkylpolysiloxan, hydrophobic silane) represented by a general formula (I) or (II). In I or II, R1 to R4, X and Y independently represent each hydrogen or an optionally substituted organic group; a is an integer of 0 to 5,000; and b is an integer of 3 to 20. An improved sensitivity was observed when the glass fiber membrane coated with dimethylpolysiloxan or octadecyltriethoxysilane was applied to an **immunoassay** of anti-HCV antibody or anti-Treponema pallidum antibody.

IC ICM G01N033-552
ICS G01N033-551; G01N033-543

CC 9-10 (Biochemical Methods)

ST **immunoassay** carrier glass fiber coating silicone

IT Polysiloxanes, uses
RL: NUU (Other use, unclassified); USES (Uses)
(alkenyl; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(**alkoxy**, **alkyltrialkoxy**; **vinyltrialkoxy**; **phenyltrialkoxy**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT Polysiloxanes, uses
RL: NUU (Other use, unclassified); USES (Uses)
(alkoxylated; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(alkylalkoxy, **alkyltrialkoxy**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Surfactants**
(amphiphilic; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(aryl, **phenyltrialkoxy**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)

IT Alkyl groups
Amino group
Amphiphiles
Carriers
Ceramics
Coating materials
Immunoassay
Membranes, nonbiological
Phenyl group
Porous materials

Treponema pallidum
(carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT Glass, uses
Glass fibers, uses
RL: DEV (Device component use); USES (Uses)
(carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(**dialkyl**; **di-Me**; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT Antigens
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(hepatitis C core; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT Molecules
(hydrophobic; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT Silanes
RL: NUU (Other use, unclassified); USES (Uses)
(hydrophobic; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT Functional groups
(hydroxysilyl; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT **Surfactants**
(nonionic; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT Antibodies
RL: ANT (Analyte); ANST (Analytical study)
(to hepatitis C virus; to Treponema pallidum; carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT **112-03-8**, Cation AB **151-21-3**, SDS, analysis 9002-93-1, Triton-X100 9004-95-9, Brij-56 **9005-67-8**, Tween-60 **115055-57-7**, Persoft EL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT 14808-60-7, Quartz, uses
RL: DEV (Device component use); USES (Uses)
(carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
IT 7399-00-0, Octadecyltriethoxysilane
RL: NUU (Other use, unclassified); USES (Uses)
(carrier **support** for **immunoassay**, and use for solid phase for **immunoassay**)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:620530 HCAPLUS
DOCUMENT NUMBER: 131:240077
TITLE: Carrier and solid **support** for **immunoassay**
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu; Yokohama, Hiroaki; Mori, Shuji; Matsumori,

Shigeru
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11264823	A2	19990928	JP 1998-372946	19981228
PRIORITY APPLN. INFO.:			JP 1997-368381	19971227

AB Carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins, e.g. IgG, in **immunoassay** of antigen or antibody. The silicon compound is dialkyl-polysiloxane (e.g. dimethylpolysiloxane), or a hydrophobic silane: alkyltrialkoxysilane, vinyltrialkoxysilane, or phenyltrialkoxysilane (e.g. octadecyltriethoxysilane). A such porous carrier comprising glass fiber coated with dimethylpolysiloxane was prepared for immobilization of hepatitis C core antigen for immunodiagnosis of anti-HCV pos. sera.

IC ICM G01N033-552
ICS C03C025-02; G01N033-543

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15

ST **immunoassay** carrier silicon compd dialkylpolysiloxane silane

IT Immunoglobulins
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(G, serum; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Functional groups
(alkoxy groups; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(alkylalkoxy, Ph; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(alkylalkoxy, alkyl; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(alkylalkoxy, vinyl; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT **Surfactants**
(amphoteric; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding

with serum proteins in **immunoassay**)

IT Proteins, general, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(blood; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Blood serum
Carriers
Ceramics
Immunoassay
Treponema pallidum
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Antibodies
Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Glass, analysis
Glass fibers, analysis
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT **Polysiloxanes, analysis**
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**dialkyl**; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Antigens
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(hepatitis C core; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT Silanes
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(hydrophobic; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT **Surfactants**
(nonionic; carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

IT 7399-00-0, Octadecyltriethoxysilane 7440-21-3D, Silicon, compds., analysis 9002-93-1, Triton X-100 **9005-64-5**, Tween 20 9016-00-6, Dimethylpolysiloxane 14808-60-7, Quartz, analysis
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(carrier compns. comprising silicon compound-coated glass fiber, quartz,

or ceramic are used for reducing nonspecific binding with serum proteins in **immunoassay**)

L64 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:529060 HCAPLUS
DOCUMENT NUMBER: 131:158611
TITLE: Selective composite membrane and preparation thereof
INVENTOR(S): Perry, Mordechai
PATENT ASSIGNEE(S): BPT - Biopure Technologies Ltd., Israel
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9940996	A1	19990819	WO 1999-IL92	19990215
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IL 123326	A1	20011031	IL 1998-123326	19980216
AU 9925426	A1	19990830	AU 1999-25426	19990215
EP 1064073	A1	20010103	EP 1999-905147	19990215
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE, FI				
JP 2002502692	T2	20020129	JP 2000-531239	19990215

PRIORITY APPLN. INFO.:
IL 1998-123326 A 19980216
WO 1999-IL92 W 19990215

AB A selective composite membrane, having many practical applications, is prepared by impregnating at least some pores of the upper layer containing relatively smaller pores in an asym. base membrane with a filling material forming an ordered macromol. structure, by applying under superatm. pressure, a solution of reactants adapted to interact with the formation of covalent bonds in the ordered macromol. structure, with a sufficiently low dilution of the reactants and a sufficiently high pressure for a time that formation of covalent bonds is initiated and progresses in pores of the upper layer to form covalent bonds with quenching at any desired stage. The membranes, useful for ultrafiltration, pervaporation, diffusion separation, gas separation, etc., can have catalytic properties, require fewer manufacturing steps, have improved stability and selectivity, and self-seal imperfections. Thus, an asym. polysulfone ultrafiltration **support** is filled with a solution of 0.025% polyethyleneimine and 0.0125% tetrachloropyrimidine at pH 10.5, ambient temperature, and 10 atm pressure, heated 30 min at 85°, placed in 40% phosphoric acid or sulfuric acid for 4 h at 90°, and washed, showing 98+% rejection to sucrose and water flux 1200 L/m2/day.

IC ICM B01D039-00
CC 38-3 (Plastics Fabrication and Uses)
ST composite membrane selective crosslinked polymer; filtration sepn catalytic membrane; polyethyleneimine tetrachloropyrimidine crosslinker selective composite membrane; polysulfone **support** crosslinked

polymer composite membrane
IT **Polysiloxanes, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(**di-Me**, hydroxy-terminated, polyimide-supported; selective composite membrane and preparation thereof)
IT Polymerization
(of monomers on **supports**; selective composite membrane and preparation thereof)
IT Crosslinking
(of polymers on **supports**; selective composite membrane and preparation thereof)
IT Polysulfones, uses
Polysulfones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-, **supports**, macromol.-containing; selective composite membrane and preparation thereof)
IT Polyethers, uses
Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysulfone-, **supports**, macromol.-containing; selective composite membrane and preparation thereof)
IT Fluoropolymers, uses
Polyimides, uses
Polysulfones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**supports**, macromol.-containing; selective composite membrane and preparation thereof)
IT **151-21-3**, Sodium dodecyl sulfate, uses
RL: MOA (Modifier or additive use); USES (Uses)
(epoxy novolak crosslinked with, polysulfone-supported; selective composite membrane and preparation thereof)
IT 1344-28-1, Aluminum oxide (Al2O3), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**support**; selective composite membrane and preparation thereof)
IT 24937-79-9
RL: TEM (Technical or engineered material use); USES (Uses)
(**supports**, macromol.-containing; selective composite membrane and preparation thereof)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:564141 HCAPLUS
DOCUMENT NUMBER: 129:182065
TITLE: Laminatable backing substrates containing paper desizing agents for simulated photographic-quality prints
INVENTOR(S): Malhotra, Shadi L.
PATENT ASSIGNEE(S): Xerox Corp., USA
SOURCE: U.S., 24 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5795696	A	19980818	US 1996-720656	19961002

PRIORITY APPLN. INFO.: US 1996-720656 19961002

AB Disclosed is a method of creating simulated photog.-quality prints using non-photog. imaging, said method comprising (a) providing a coated transparent substrate having a wrong reading toner image formed thereon using a non-photog. imaging process, (b) providing one surface of a backing substrate with a first coating comprising a polymeric adhesive binder having a glass transition temperature less than 55°, an antistatic agent, a lightfastness-inducing agent, and an optional filler, (c) providing said one surface of said backing substrate with a second coating in contact with said first coating wherein said second coating comprises a hydrophilic polymer having a m.p. of greater than 50°, and a paper desizing agent material having a m.p. of less than 75°, (d) providing a coating on another surface of said protective member opposite said one surface which is luminescent, antistatic, scuff resistant, and lightfast, and (e) adhering said substrates to each other by the application of heat and pressure.

IC ICM G03G013-16

NCL 430124000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST laminable paper **support** simulated photog print

IT **Polysiloxanes, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(**dialkyl**; laminatable backing substrates for simulated photog.-quality print preparation containing)

IT Polysulfones, uses
Polysulfones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-; transparent **supports** for simulated photog.-quality prints with laminatable backing substrates containing paper desizing agents)

IT Polyethers, uses
Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysulfone-; transparent **supports** for simulated photog.-quality prints with laminatable backing substrates containing paper desizing agents)

IT Cellophane
(transparent **supports** for simulated photog.-quality prints with laminatable backing substrates containing paper desizing agents)

IT Polycarbonates, uses
Polyesters, uses
Polyimides, uses
Polysulfones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(transparent **supports** for simulated photog.-quality prints with laminatable backing substrates containing paper desizing agents)

IT 88-24-4, 2,2'-Methylenebis(6-tert-butyl-4-ethylphenol) 88-27-7, 2,6-Di-tert-butyl-4-(dimethylaminomethyl)phenol 112-80-1D, 9-Octadecenoic acid (9Z)-, N-hydroxyethylimidazoline edrivs., uses 119-47-1, 2,2'-Methylenebis(6-tert-butyl-4-methylphenol) 120-40-1, Lauric diethanolamide 122-32-7, Glyceryl trioleate 123-28-4, Didodecyl 3,3'-thiodipropionate 142-78-9, Lauric monoethanolamide 471-34-1, Calcium carbonate, uses 577-11-7, Sodium dioctyl sulfosuccinate 693-36-7, Dioctadecyl 3,3'-thiodipropionate 695-10-3D, coco and oleic and tall oil derivs. 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1314-98-3, Zinc sulfide, uses 1338-39-2, Sorbitan monolaurate 1338-43-8, Sorbitan monooleate 1344-28-1D, Alumina, hydrated 1709-70-2, 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-

hydroxybenzyl)benzene 1843-05-6 4229-35-0 7631-86-9, Silica, uses 7727-43-7, Barium sulfate 7789-75-5, Calcium fluoride, uses 9002-88-4 9002-92-0, Lauryl alcohol ethoxylate 9003-08-1, Formaldehyde-melamine copolymer 9003-09-2, Poly(methyl vinyl ether) 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-17-2, Polybutadiene 9003-17-2D, Polybutadiene, dicarboxy-terminated 9003-17-2D, Polybutadiene, phenyl-terminated 9003-18-3, Acrylonitrile-butadiene copolymer 9003-20-7, Poly(vinyl acetate) 9003-21-8, Poly(methyl acrylate) 9003-27-4 9003-28-5, Poly(1-butene) 9003-31-0, Polyisoprene 9003-32-1, Poly(ethyl acrylate) 9003-42-3, Poly(ethyl methacrylate) 9003-44-5, Poly(isobutyl vinyl ether) 9003-47-8, Poly(vinylpyridine) 9003-49-0, Poly(butyl acrylate) 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile-styrene copolymer 9003-55-8, Butadiene-styrene copolymer 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9003-63-8, Poly(butyl methacrylate) 9003-77-4, Poly(2-ethylhexyl acrylate) 9003-95-6, Poly(vinyl stearate) 9004-36-8, Cellulose acetate butyrate 9004-38-0, Cellulose acetate hydrogen phthalate 9004-41-5, Cyanoethylated cellulose 9004-48-2, Cellulose propionate 9004-57-3, Ethylcellulose 9004-74-4 9004-81-3, Poly(ethylene glycol) monolaurate 9004-96-0, Poly(ethylene glycol) monooleate 9004-98-2 9005-02-1, Poly(ethylene glycol) dilaurate 9005-07-6, Poly(ethylene glycol) dioleate **9005-64-5**, Poly(oxyethylene) sorbitan monolaurate 9005-65-6, Poly(oxyethylene) sorbitan monooleate 9005-70-3, Poly(oxyethylene) sorbitan trioleate 9006-26-2, Maleic anhydride-ethylene copolymer 9010-79-1, Ethylene-propylene copolymer 9010-85-9, Isobutylene-isoprene copolymer 9010-86-0, Ethylene-ethyl acrylate copolymer 9011-05-6, Formaldehyde-urea copolymer 9011-05-6D, Formaldehyde-urea copolymer, alkylated 9011-06-7, Vinyl chloride-vinylidene chloride copolymer 9011-14-7, Poly(methyl methacrylate) 9011-16-9, Maleic anhydride-methyl vinyl ether copolymer 9011-53-4, Butyl methacrylate-isobutyl methacrylate copolymer 9016-45-9, Nonyl phenol ethoxylate 9017-21-4, Poly(vinyltoluene) 9019-70-9, Styrene-vinylpyridine copolymer 9022-52-0, Poly(chlorostyrene) 9036-19-5, Octyl phenol ethoxylate 9036-63-9, Poly(isooctyl acrylate) 9050-31-1, Hydroxypropylmethyl cellulose phthalate 9053-30-9, Poly(tert-butylstyrene) 10101-39-0 10595-72-9, Ditridecyl 3,3'-thiodipropionate 13463-67-7, Titanium dioxide, uses 14995-49-4 16432-81-8 16545-54-3 24936-41-2, Poly(4-methylstyrene) 24936-97-8, Poly(1,4-butylene adipate) 24937-05-1, Poly(ethylene adipate) 24937-78-8, Ethylene-vinyl acetate copolymer 24938-37-2, Poly(ethylene adipate) 24938-67-8, Poly(2,6-dimethyl p-phenylene oxide) 24969-10-6, Epichlorohydrin-ethylene oxide copolymer 24979-82-6, Poly(propyl acrylate) 24991-55-7, Poly(ethylene glycol dimethyl ether) 25014-31-7, Poly(α-methylstyrene) 25035-78-3, Poly(diallyl isophthalate) 25035-84-1, Poly(vinyl propionate) 25036-21-9, Poly(benzyl acrylate) 25037-78-9, Ethylene-vinyl chloride copolymer 25053-15-0, Poly(diallyl phthalate) 25086-48-0, Vinyl acetate-vinyl alcohol-vinyl chloride copolymer 25087-17-6, Poly(hexyl methacrylate) 25103-87-1, Poly(1,4-butylene adipate) 25119-62-4, Allyl alcohol-styrene copolymer 25153-40-6, Maleic acid-methyl vinyl ether copolymer 25189-01-9, Poly(phenyl methacrylate) 25213-24-5, Vinyl acetate-vinyl alcohol copolymer 25213-39-2, Butyl methacrylate-styrene copolymer 25232-27-3, Poly(tert-butyl acrylate) 25249-16-5, Poly(2-hydroxyethyl methacrylate) 25266-02-8, Maleic anhydride-1-octadecene copolymer 25266-13-1, Poly(octyl acrylate) 25322-68-3 25322-69-4 25496-72-4, Glyceryl monooleate 25569-53-3, Poly(ethylene succinate) 25587-82-0, Poly(2,4,6-tribromostyrene) 25609-74-9, Poly(propyl methacrylate) 25637-84-7, Glyceryl dioleate 25639-21-8, Poly(octadecyl methacrylate) 25667-11-2, Poly(ethylene succinate) 25719-51-1, Poly(2-ethylhexyl

methacrylate) 25719-52-2, Poly(lauryl methacrylate) 25721-76-0, Poly(ethylene glycol dimethacrylate) 25852-47-5 25852-49-7, Poly(propylene glycol dimethacrylate) 25986-77-0, Poly(octadecyl acrylate) 26022-14-0, Poly(2-hydroxyethyl acrylate) 26124-32-3, Poly(isopropyl acrylate) 26246-92-4, Poly(lauryl acrylate) 26264-05-1, Isopropylamine dodecylbenzenesulfonate 26264-06-2, Calcium dodecylbenzenesulfonate 26266-58-0, Sorbitan trioleate 26403-72-5, Poly(ethylene glycol diglycidyl ether) 26570-48-9 26715-88-8, Poly(vinyl pivalate) 26716-20-1, Poly(tert-butylaminoethyl methacrylate) 26760-99-6, Poly(ethylene azelate) 26762-07-2, Poly(ethylene azelate) 27103-47-5, Poly(hexyl acrylate) 27458-65-7, Poly(cyclohexyl acrylate) 27516-89-8 28158-21-6, Poly(trimethylene succinate) 28265-35-2, Butadiene-maleic acid copolymer 28406-56-6, Poly(2-vinylnaphthalene) 28628-64-0, Poly(2-methoxyethyl acrylate) 28725-67-9, Poly(trimethylene succinate) 28725-68-0 29320-53-4, Poly(decyl methacrylate) 29500-86-5, Poly(decyl acrylate) 29963-76-6, Poly[2-(4-benzoyl-3-hydroxyphenoxy)ethyl acrylate] 32628-06-1 36221-42-8, Poly(trimethylene adipate) 36568-42-0, Poly(trimethylene adipate) 37200-12-7, Poly(isodecyl methacrylate) 39350-27-1, Poly(bromostyrene) 40601-76-1 52234-59-0, Poly(trimethylene glutarate) 52256-48-1, Poly(trimethylene glutarate) 52985-34-9, Polychloroisoprene 53761-76-5, Butyl methacrylate-4-vinylpyridine copolymer 54841-40-6, Poly(isodecyl acrylate) 62501-03-5, Poly(hydroxypropyl acrylate) 66987-22-2, Poly(vinyl neodecanoate) 67845-93-6, Hexadecyl 3,5-di-tert-butyl-4-hydroxybenzoate 71599-31-0, Poly(methoxystyrene) 72779-48-7, Hydroxyethylcellulose methacrylate 79720-19-7 82451-48-7 91313-01-8 93792-59-7, Hydroxypropylmethyl cellulose succinate 106917-30-0 106917-31-1 111483-45-5, Hydroxyethylcellulose acrylate 122269-49-2, Ethylene oxide-isoprene block copolymer 145332-37-2, Ethylene oxide-2-hydroxyethyl methacrylate block copolymer 201798-70-1, Ethylene oxide-hydroxypropyl methacrylate block copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(laminatable backing substrates for simulated photog.-quality print preparation containing)

IT 9002-86-2, Poly(vinyl chloride) 9003-07-0, Polypropylene 9012-09-3, Cellulose triacetate 9020-32-0, Polyethylene naphthalate 9020-73-9 24981-14-4, Poly(vinyl fluoride)
RL: TEM (Technical or engineered material use); USES (Uses)
(transparent **supports** for simulated photog.-quality prints with laminatable backing substrates containing paper desizing agents)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:672712 HCAPLUS
DOCUMENT NUMBER: 125:322311
TITLE: Multi-array, multi-specific electrochemiluminescence testing
INVENTOR(S): Wohlstadter, Jacob; Wilbur, James; Sigal, George; Martin, Mark; Guo, Liang-Hong; Fischer, Alan; Leland, Jon
PATENT ASSIGNEE(S): Meso Scale Technologies, Llc, USA
SOURCE: PCT Int. Appl., 221 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9628538	A1	19960919	WO 1996-US3190	19960306
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
CA 2213854	AA	19960919	CA 1996-2213854	19960306
AU 9654205	A1	19961002	AU 1996-54205	19960306
AU 720625	B2	20000608		
BR 9607193	A	19971111	BR 1996-7193	19960306
EP 821726	A1	19980204	EP 1996-911269	19960306
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV, FI				
CN 1186513	A	19980701	CN 1996-193840	19960306
JP 11502617	T2	19990302	JP 1996-527737	19960306
TW 555852	B	20031001	TW 1996-85102864	19960306
ZA 9601925	A	19970805	ZA 1996-1925	19960308
US 6140045	A	20001031	US 1997-814085	19970306
PRIORITY APPLN. INFO.:			US 1995-402076 A	19950310
			US 1995-402277 A	19950310
			US 1996-12957P P	19960306
			WO 1996-US3190 W	19960306

AB The invention relates to a cassette for conducting electrochemiluminescence (ECL) reactions and **assays** comprising a plurality of discrete binding domains immobilized on a support, the discrete binding domains being spatially aligned with ≥1 electrode and ≥1 counterelectrode pairs. The cassette preferably includes a first support having a plurality of discrete binding domains immobilized on the surface. It may have ≥1 electrode and ≥1 counterelectrode pairs. The electrode and counterelectrode pairs are sep. addressable by a source of elec. energy in the form of a voltage waveform effective to trigger ECL. The invention relates further to methods for using the cassettes for measuring ECL in a sample by contacting the plurality of binding domains of a cassette with a sample that contains a plurality of analytes of interest, under ECL **assay** conditions, and then applying a voltage waveform effective to trigger ECL at each of the plurality of electrode and counterelectrode pairs and detecting or measuring the triggered ECL. The invention also provides kits for performing the **assays**. Examples are given of the detection of α-fetoprotein, TSH, and prostate-specific antigen.

IC ICM C12M001-00
ICS C12M001-40; C12Q001-00; C12Q001-68; G01N021-76; G01N033-53; G01N033-543; G01N033-567

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 14, 15, 73, 80

ST patterned multiarray multispecific surface electrochemiluminescence analysis; **immunoassay** electrochemiluminescence antibody antigen

IT Animal tissue
Blood analysis
Body fluid
Cell
Electrodes
Fibril
Gas analysis
Immobilization, biochemical
Immunoassay

Mammal
Optical filters
Oxidizing agents
Reducing agents
Surfactants
(multiarray, multispecific electrochemiluminescence methods and kits for biochem. anal.)

IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(**di-Me**, multiarray, multispecific electrochemiluminescence methods and kits for biochem. anal.)

L64 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:382906 HCAPLUS
DOCUMENT NUMBER: 125:53034
TITLE: Specific binding **assays** and reagents therefore
INVENTOR(S): Kiaei, David; Livshin, Laurie Ann; Piran, Uri
PATENT ASSIGNEE(S): Ciba Corning Diagnostics Corp., USA
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 713095	A2	19960522	EP 1995-308090	19951113
EP 713095	A3	19960731		
EP 713095	B1	20010530		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI				
US 5639626	A	19970617	US 1994-339870	19941115
AU 9520447	A1	19960523	AU 1995-20447	19950602
AU 713482	B2	19991202		
CA 2151197	AA	19960516	CA 1995-2151197	19950607
PL 178150	B1	20000331	PL 1995-309211	19950621
JP 08240590	A2	19960917	JP 1995-271031	19951019
EP 1085322	A1	20010321	EP 2000-204023	19951113
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI				
US 5710006	A	19980120	US 1997-821664	19970319
PRIORITY APPLN. INFO.:			US 1994-339870 A	19941115
			EP 1995-308090 A3	19951113

AB A sensitive **assay** method was discovered that reduces the amount of nonspecific binding present in an **assay**, e.g., **immunoassay** or gene probe **assay**. The method comprises detecting an analyte present in a sample through a specific binding reaction in which either an analog of the analyte or a specific binding partner of the analyte is immobilized on a solid phase and said specific binding reaction produces a detectable product immobilized on said solid phase that may be correlated to the amount of analyte present in the sample. This **assay** employs an effective amount of a surfactant selected from the group consisting of a polyoxyethylene-alkyl ether, a polyalkylene oxide-modified polydimethylsiloxane block copolymer, a polyalkylene oxide-modified polymethylsiloxane block copolymer, and mixts. thereof to reduce nonspecific binding.

IC ICM G01N033-543
ICA G01N033-573

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 3, 15
ST solid phase binding **assay** nonionic surfactant; heterogeneous **immunoassay** nonspecific binding redn surfactant; genetic probe **assay** nonspecific binding redn
IT Genetic methods
Immunoassay
(heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT Albumins, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT Siloxanes and Silicones, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Me, polyalkylene oxide-modified; heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT Analysis
(biochem., heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**di-Me**, polyalkylene oxide-modified; heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**di-Me**, 3-hydroxypropyl Me, ethoxylated propoxylated, heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT **Siloxanes and Silicones, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**di-Me**, hydroxypropyl Me, ethers with polyoxyalkylene glycol mono-C1-3-alkyl ether, heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal, heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT **Surfactants**
(nonionic, heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT Nucleotides, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(oligo-, heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT Globulins, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(γ-, heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT 6893-02-3, Triiodothyronine 9001-15-4, Creatine kinase 9002-71-5, TSH 25550-58-7, Dinitrophenol
RL: ANT (Analyte); ANST (Analytical study)
(heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)
IT 9002-89-5, PVA 9002-92-0, Brij 30 9002-93-1, Triton X 100 9003-07-0, Polypropylene 9003-53-6, Polystyrene **9005-64-5**, Tween 20 14265-44-2, Phosphate, analysis 25322-68-3, Polyethylene oxide

25322-68-3D, alkyl ethers 106392-12-5, Pluronic 110617-70-4, Tetronic
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(heterogeneous binding **assays** with nonionic surfactant to reduce nonspecific binding)

L64 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:167956 HCAPLUS
DOCUMENT NUMBER: 116:167956
TITLE: Comparison of cytotoxic effects of chemicals in four different cell types
AUTHOR(S): Sasaki, K.; Tanaka, N.; Watanabe, M.; Yamada, M.
CORPORATE SOURCE: Food Drug Saf. Cent., Hadano, 257, Japan
SOURCE: Toxicology in Vitro (1991), 5(5-6), 403-6
CODEN: TIVIEQ; ISSN: 0887-2333
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cytotoxic effects were compared using a colony-formation **assay** in 3 established cell lines (Balb 3T3, mouse whole embryo, ARLJ301-3, rat liver and FRSK, rat keratinocytes) and one primary cell culture (RC-1, rabbit cornea) with the Draize eye irritancy score in vivo. The cells were treated with 52 chems. on the day after plating, then cultured for 7 or 8 days. The 50% inhibition dose (ID50) for each chemical was calculated based on the colony number With a few exceptions, the cytotoxicities of the chems. were in the following order in all 4 cells: cationic detergents > anionic detergents > nonionic detergents > glycol or oil. These results were almost the same as the data in vivo. The correlation coeffs. of the ID50 to the Draize score of 20 in vivo were 0.57 (Balb 3T3), 0.61 (ARLJ301-3), 0.71 (FRSK) and 0.65 (RC-1). Balb 3T3 and ARLJ301-3 cells were slightly more sensitive to chems. than FRSK and RC-1 cells. These results suggest that the colony-formation **assay** using established cell lines is an attractive method for the screening of chems. in that large differences among cell types in their response to direct-acting chems., were not observed

CC 4-3 (Toxicology)
ST chem cytotoxicity colony formation **assay**
IT Animal cell line
(ARLJ301-3, chemical toxicity to, in colony formation **assay**)
IT Animal cell line
(RC-1, chemical toxicity to, in colony formation **assay**)
IT Toxicity
(of chems., in colony formation **assay** with animal cell lines)
IT Glycols, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity of, in colony formation **assay** with animal cell lines)
IT Animal cell line
(Balb/3T3, chemical toxicity to, in colony formation **assay**)
IT Animal cell line
(FRSK, chemical toxicity to, in colony formation **assay**)
IT Quaternary ammonium compounds, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(alkylbenzyldimethyl, chlorides, toxicity of, in colony formation **assay** with animal cell lines)
IT Detergents
(amphoteric, toxicity of, in colony formation **assay** with animal cell lines)
IT Detergents
(anionic, toxicity of, in colony formation **assay** with animal cell lines)

IT Detergents
(cationic, toxicity of, in colony formation **assay** with animal cell lines)
IT Amides, biological studies
RL: BIOL (Biological study)
(coco, glutamate- and laurate-containing, sodium salts, toxicity of, in colony formation **assay** with animal cell lines)
IT Fatty acids, esters
RL: BIOL (Biological study)
(coco, hydrogenated, esters, glyceryl-containing, sodium salts, toxicity of, in colony formation **assay** with animal cell lines)
IT Amides, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(coco, N,N-bis(hydroxyethyl), toxicity of, in colony formation **assay** with animal cell lines)
IT **Siloxanes and Silicones, biological studies**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(**di-Me**, toxicity of, in colony formation **assay** with animal cell lines)
IT Castor oil
RL: BIOL (Biological study)
(hydrogenated, ethoxylated, esters with isostearic acid, toxicity of, in colony formation **assay** with animal cell lines)
IT Detergents
(nonionic, toxicity of, in colony formation **assay** with animal cell lines)
IT Amides, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(tallow, N-(hydroxyethyl), toxicity of, in colony formation **assay** with animal cell lines)
IT 50-00-0, Formalin, biological studies 56-81-5, Glycerine, biological studies 56-86-0D, L-Glutamic acid, acyl and cocoyl, sodium salts, biological studies 57-50-1D, fatty acid esters 57-55-6, Propylene glycol, biological studies 64-17-5, Ethanol, biological studies 67-64-1, Acetone, biological studies 107-64-2, Dimethyl distearyl ammonium chloride 107-88-0, 1,3-Butylene glycol 110-27-0, Isopropyl myristate 111-42-2D, Diethanolamine, coconut fatty amides **112-03-8**, Stearyl trimethyl ammonium chloride 121-54-0, Benzethonium chloride 122-99-6, 2-Phenoxyethanol 137-16-6, Sodium N-lauroyl sarcosinate 141-43-5D, Ethanolamine, tallow acid amides 143-07-7D, Dodecanoic acid, coconut fatty acid esters, sodium salts 143-07-7D, Dodecanoic acid, sucrose esters 149-87-1D, N-α-cocoylarginine Et ester salts **151-21-3**, Sodium lauryl sulfate, biological studies 532-32-1, Sodium benzoate 676-46-0, Sodium malate 683-10-3, Lauryl dimethylaminoacetic acid betaine 1310-73-2, Sodium hydroxide, biological studies 1338-43-8, Sorbitan monooleate 6915-15-7, Malic acid 7360-38-5 7664-93-9D, Sulfuric acid, esters with hydrogenated coco glycerol, sodium salts 9002-92-0, Polyoxyethylene lauryl ether 9004-82-4 9004-96-0, Polyoxyethylene glycol monooleate 9004-99-3D, esters with hydrogenated castor oil **9005-64-5**, Polyoxyethylene sorbitan monolaurate 9005-65-6, Polyoxyethylene sorbitan monooleate 9016-45-9, Polyoxyethylene nonyl phenyl ether 10124-65-9, Potassium laurate 25265-71-8, Dipropylene glycol 25322-68-3, Polyethylene glycol 28696-31-3D, Arginine ethyl ester, cocoyl, 5-oxopyrrolidine-2-carboxylate 29923-31-7, Sodium N-lauroyl-L-glutamate 29963-33-5, Sodium tetradecenesulfonate 39464-66-9, Polyoxyethylene lauryl ether phosphate 59149-04-1D, N-(Carboxymethyl)-N-(hydroxyethyl)imidazolinium betaine, alkyl derivs. 63089-86-1, Polyoxyethylene sorbitol tetraoleate 68957-79-9 80462-94-8

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (toxicity of, in colony formation **assay** with animal cell lines)

L64 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:666935 HCAPLUS
DOCUMENT NUMBER: 115:266935
TITLE: Developing solutions for waterless presensitized lithographic plates comprising propylene glycol and surfactants
INVENTOR(S): Nogami, Akira; Uehara, Masabumi; Shimura, Kazuhiro
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03148666	A2	19910625	JP 1989-287660	19891104
PRIORITY APPLN. INFO.:			JP 1989-287660	19891104

AB Developing solns. for waterless presensitized lithog. plates comprising a **support** with coatings of a photosensitive layer and a silicone rubber layer, contain propylene glycol (I), surfactants, and water. The developing solns. are low toxic and low combustible, and show improved concentrating property. Thus, an imagewise exposed presensitized lithog. plate containing p-diazodiphenylamine hexafluorophosphate-formaldehyde copolymer and silicone rubber layer was developed with a solution containing I, Na laurylsulfate, monoethanol amine, diethylene glycol monomethyl ether, and H2O to give a high quality printing plate.
IC ICM G03F007-32
ICS G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **Siloxanes and Silicones, uses and miscellaneous**
RL: DEV (Device component use); USES (Uses)
(**di-Me**, presensitized lithog. plate containing)
IT 57-55-6, Propylene glycol, uses and miscellaneous **151-21-3**, Sodium laurylsulfate, uses and miscellaneous 25417-20-3, Sodium dibutylnaphthalenesulfonate
RL: USES (Uses)
(developer containing, for presensitized lithog. plate)

L64 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:506502 HCAPLUS
DOCUMENT NUMBER: 109:106502
TITLE: Improving the biological efficacy of small droplets of permethrin by the addition of silicon-based surfactants
AUTHOR(S): Adams, A. J.; Fenlon, J. S.; Palmer, Anne
CORPORATE SOURCE: Inst. Hortic. Res., West Sussex, BN17 6LP, UK
SOURCE: Annals of Applied Biology (1988), 112(1), 19-31
CODEN: AABIAV; ISSN: 0003-4746
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Four oil-soluble copolymer Silwet surfactants and 2 oil-dispersible silicone-based, non-ionic surfactants were incorporated in two oil-based

formulations of permethrin. At the optimal concentration of surfactant, 40 μm droplets of the insecticide were twice as effective against whitefly (Trialeurodes vaporariorum) larvae on greenhouse tomatoes as droplets without surfactant. The addition of 10 μL Silwet L-77 surfactant/L to a formulation containing 10 g/L permethrin resulted in a spray mixture which was at least as effective as the same formulation containing 100 g/L permethrin without surfactant. These improvements in efficacy were not attributable to droplet spread or perimeter on the leaf surface, or to differences in the surface tension of the mixts. The implications of these results for ultra-low volume spraying are discussed. A statistical model based on the zero-cell of the Poisson distribution is described and used to analyze the **bioassay** results.

CC 5-4 (Agrochemical Bioregulators)

IT **Surfactants**
(agricultural, polysiloxane, permethrin synergization by, in greenhouse whitefly control on tomatoes)

IT **Siloxanes and Silicones, compounds**
RL: BIOL (Biological study)
(**di-Me**, 3-hydroxypropyl Me, ethers, with polyethylene-polypropylene glycol mono-Me ether, permethrin synergization by, in greenhouse whitefly control on tomatoes)

IT **Siloxanes and Silicones, biological studies**
RL: BIOL (Biological study)
(**di-Me**, polyoxyalkylene-, permethrin synergization by, in greenhouse whitefly control on tomatoes, Silwet)

L64 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:461790 HCAPLUS
DOCUMENT NUMBER: 109:61790
TITLE: A leak-proof device for compressional-expansional cycling of surface films
AUTHOR(S): Townsend, David F.; Bock, Erik J.
CORPORATE SOURCE: Res. Cent., Hercules Inc., Wilmington, DE, 19894, USA
SOURCE: Langmuir (1988), 4(4), 938-41
CODEN: LANGD5; ISSN: 0743-7463
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An apparatus was constructed to produce repetitive compression-expansion cycles of surface-area, using a unique design to guarantee containment of the surface layer, and applied to insol. monolayers of poly(dimethylsiloxane) and aqueous SDS solns. The observed reversibility of a transition believed to be the transition of a poly(dimethylsiloxane) monolayer from the uncoiled conformation to the coiled conformation is shown. Marked hysteresis in the observed surface tension vs. area diagram for this monolayer **supports** the assumption that the polymer chain maintains a coiled conformation at high cycling rates. The shape of the hysteresis loop for a SDS solution is a good criterion for purity as well as an indicator of relative surface activity. The apparatus can be used to study the response of alveolar fluid ("lung surfactant") to liquid surface area changes.

CC 66-1 (Surface Chemistry and Colloids)
Section cross-reference(s): 6

IT **Siloxanes and Silicones, properties**
RL: PRP (Properties)
(**di-Me**, surface films, compression-expansion behavior of)

IT **151-21-3**, Sodium dodecyl sulfate, properties
RL: PRP (Properties)
(surface film behavior of polydimethylsiloxane monolayer films on aqueous)

L64 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1982:155474 HCAPLUS
DOCUMENT NUMBER: 96:155474
TITLE: Inhibition of arachidonic acid oxidation in vitro by vehicle components
AUTHOR(S): Penneys, Neal S.
CORPORATE SOURCE: Sch. Med., Univ. Miami, Miami, FL, 33101, USA
SOURCE: Acta Dermato-Venereologica (1982), 62(1), 59-61
CODEN: ADVEA4; ISSN: 0001-5555
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A representative sample of the most common compds. in topical vehicles was evaluated for their ability to interfere with the in vitro oxidation of arachidonic acid [506-32-1] (measured by O consumption **assay**). Waxes (lanolin derivs.), camphor [76-22-2], menthol [1490-04-6], and common antipruritic agents did not interfere; petrolatum and related compds. (mineral oil) as well as complex vehicles that contain these substances inhibit; and certain lipid-containing emulsifiers, aloe gel (directly from the plant), and a com. aloe extract interfered with the oxidation of arachidonic acid. Inhibition of oxygen consumption, in vitro, by these vehicles may reflect inhibition of lipoxygenase and (or) prostaglandin synthetase activity or possibly sequestration of arachidonic acid. Thus, some of the substances present in vehicles might function in vivo as antiinflammatory agents.

CC 1-12 (Pharmacology)
Section cross-reference(s): 63

IT **Siloxanes and Silicones, biological studies**
RL: BIOL (Biological study)
(**di-Me**, as vehicle components, arachidonate oxidation response to, antiinflammatory activity in relation to)

IT 57-55-6, biological studies 76-22-2 112-92-5 1314-13-2, biological studies 1321-13-7 1490-04-6 8029-15-0 **9005-66-7** 24634-61-5 25322-68-3
RL: BIOL (Biological study)
(as vehicle component, arachidonic acid oxidation response to, inflammation inhibition in relation to)

```
=> d que l83
L80          289 SEA FILE=EMBASE ABB=ON  PLU=ON  POLYSILOXANE/CT
L81       146886 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNOASSAY+NT/CT
L82            3 SEA FILE=EMBASE ABB=ON  PLU=ON  L80 AND L81
L83            2 SEA FILE=EMBASE ABB=ON  PLU=ON  L82 AND (SOLID OR SUPPORT OR
                 GLASS OR CERAMIC OR ?STYRENE? OR AMPHIPATH? OR SURFACT?)


=> d ibib abs hitind 1-2

L83  ANSWER 1 OF 2  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
ACCESSION NUMBER:    2002164938  EMBASE
TITLE:               Polysiloxane/PVA-glutaraldehyde hybrid composite as
                     solid phase or immunodetections by ELISA.
AUTHOR:              Lima Barros A.E.; Almeida A.M.P.; Carvalho Jr. L.B.;
                     Azevedo W.M.
CORPORATE SOURCE:    L.B. Carvalho Jr., Lab. de Imunopatologia Keizo Asami,
                     Departamento de Bioquimica, UFPE, 50670-420 Recife, PE,
                     Brazil. lbcj@npd.ufpe.br
SOURCE:              Brazilian Journal of Medical and Biological Research,
                     (2002) 35/4 (459-463).
                     Refs: 19
                     ISSN: 0100-879X  CODEN: RBPMB2
COUNTRY:             Brazil
DOCUMENT TYPE:       Journal; Article
FILE SEGMENT:        026     Immunology, Serology and Transplantation
                     027     Biophysics, Bioengineering and Medical
                             Instrumentation
LANGUAGE:            English
SUMMARY LANGUAGE:    English
AB   We developed an efficient method to prepare a hybrid inorganic-organic
     composite based on polyvinyl alcohol (PVA) and polysiloxane using the
     sol-gel disc technique. Antigen obtained from Yersinia pestis was
     covalently immobilized onto these discs with glutaraldehyde and used as
     solid phase in ELISA for antibody detection in serum of rabbits
     experimentally immunized with plague. Using 1.25 µg antigen per disc, a
     peroxidase conjugate dilution of 1:4,000 and a serum dilution of 1:200
     were adequate for the establishment of the procedure. These values are
     similar to those used for PVA-glutaraldehyde discs, plasticized filter
     paper discs and the polyaniline-Dacron composite discs. This procedure is
     comparable to that which utilizes the adsorption of the antigen to
     conventional PVC plates, with the amount of antigen being one fourth that
     employed in conventional PVC plates (5 µg/well). In addition to the
     performance of the polysiloxane/PVA-glutaraldehyde disc as a matrix for
     immunodetection, its easy synthesis and low cost are additional advantages
     for commercial application.
CT   Medical Descriptors:
     *antibody detection
     *immunodetection
       *enzyme linked immunosorbent assay
     composite material
       solid
     hybrid
     gel
     Yersinia pestis
     immobilization
     serum
```

rabbit
plague
adsorption
synthesis
cost
commercial phenomena
controlled study
article
Drug Descriptors:
***polysiloxane**
*polyvinyl alcohol
*glutaraldehyde
bacterial antigen
peroxidase
polyaniline
dacron

RN (polyvinyl alcohol) 37380-95-3, 9002-89-5; (glutaraldehyde) 111-30-8, 37245-61-7; (peroxidase) 9003-99-0; (polyaniline) 25233-30-1; (dacron) 60527-88-0

L83 ANSWER 2 OF 2 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 95206320 EMBASE
DOCUMENT NUMBER: 1995206320
TITLE: Implantable bone substitute materials.
AUTHOR: Hanft J.R.; Sprinkle R.W.; Surprenant M.S.; Werd M.B.
CORPORATE SOURCE: Podiatric Research, HealthSouth Larkin Podiatric, Residency Program, 7401 S.W. 62 Avenue,South Miami, FL 33143, United States
SOURCE: Clinics in Podiatric Medicine and Surgery, (1995) 12/3 (437-455).
ISSN: 0891-8422 CODEN: CPSUEB
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
029 Clinical Biochemistry
033 Orthopedic Surgery
LANGUAGE: English
SUMMARY LANGUAGE: English

AB This article focuses on materials used as bone substitutes. The materials may be used as substitutes for autografts or, in some cases, along with autografts. Each material has unique properties that may be beneficial for specific applications. Some future developments in bone substitute materials are also discussed.

CT Medical Descriptors:
*bone prosthesis
*materials
allograft
ankle
biocompatibility
bone defect: SU, surgery
bone development
bone graft
bone matrix
bone regeneration
bone screw
foot surgery
human

kirschner wire
nonhuman
priority journal
radioimmunoassay
review
safety
Drug Descriptors:
aluminum oxide
calcium carbonate
calcium ion: EC, endogenous compound
calcium phosphate
calcium sulfate
chromium
cobalt
collagen
glass
hormone: EC, endogenous compound
hydroxyapatite
metal
poly(methyl methacrylate)
polysiloxane
protein: EC, endogenous compound
recombinant dna
roseolic acid
silastic
silicone
stainless steel
titanium
transforming growth factor beta: EC, endogenous compound
RN (aluminum oxide) 1302-74-5, 1318-23-6, 1344-28-1, 14762-49-3; (calcium carbonate) 13397-26-7, 13701-58-1, 14791-73-2, 471-34-1; (calcium ion) 14127-61-8; (calcium phosphate) 10103-46-5, 13767-12-9, 14358-97-5, 7758-87-4; (calcium sulfate) 13397-24-5, 23296-15-3, 7778-18-9; (chromium) 16065-83-1, 7440-47-3; (cobalt) 7440-48-4; (collagen) 9007-34-5; (hydroxyapatite) 1306-06-5, 51198-94-8; (poly(methyl methacrylate)) 39320-98-4, 9008-29-1; (protein) 67254-75-5; (roseolic acid) 11052-94-1, 603-45-2; (silastic) 63394-02-5; (silicone) 63148-53-8, 8043-93-4, 8055-24-1; (stainless steel) 12597-68-1; (titanium) 7440-32-6

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=> d que l73
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L33           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SODIUM OLEATE/CN
L34           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SODIUM CHOLATE/CN
L35           0 SEA FILE=REGISTRY ABB=ON  PLU=ON  SODIUM DODECYLSULFATE/CN
L36           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SODIUM DODECYL SULFATE/CN
L37           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPALMITOYLPHOSPHATIDIC
                ACID/CN
L38           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPALMITOYLPHOSPHATIDYLSERINE
                /CN
L39           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PERSOFT EL/CN
L40           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  CATION AB/CN
L41           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIMYRISTOYLPHOSPHATIDYLCHOLIN
                E/CN
L42           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPALMITOYLPHOSPHATIDYLCHOLIN
                E/CN
L43           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  DISTEAROYLPHOSPHATIDYLCHOLINE
                /CN
L44           0 SEA FILE=REGISTRY ABB=ON  PLU=ON  EGG YOLK PHOSPHAPHATIDYLCHOLI
                NES/CN
L45           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  EGG YOLK PHOSPHATIDYLCHOLINES
                /CN
L46           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TWEEN 20/CN
L47           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TWEEN 40/CN
L48           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TWEEN 60/CN
L49          17 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR
                L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR
                L46 OR L47 OR L48)
L50           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ALKYLPOLYOXYETHYLENE ETHER?
L51         461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SORBITAN(2A)ETHER
L52           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ALKYLPHENYLPOLYOXY?(1A)?ETHER?

L53       60381 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L49 OR (L50 OR L51 OR L52)
L65        1706 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)(SOLID
                OR SUPPORT)
L66         218 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SILANES+PFT/CT(L)(SOLID OR
                SUPPORT)
L67          88 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSILOXANES+OLD/CT(L)?ASSAY?

L68          17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SILANES+OLD/CT(L)?ASSAY?
L69       53308 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L24 OR L67 OR L68
L70        1902 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 OR L66
L71          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L69 AND L70
L72           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L49 OR L50 OR L51 OR L52 OR
                L53) AND L71
L73          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L71 OR L72


=> d l73 ibib abs hitind 1-16

L73  ANSWER 1 OF 16  HCAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:802444  HCAPLUS
DOCUMENT NUMBER:          141:274018
TITLE:                    Universal reagents useful for labeling and detection
                          of analytes for rolling circle amplification and
                          methods of storage and use
INVENTOR(S):              Abarzua, Patricio; Smelkova, Natalia; Sparkowski,
                          Jason
```

PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004191784	A1	20040930	US 2003-405822	20030331
PRIORITY APPLN. INFO.:			US 2003-405822	20030331

AB Disclosed are compns. and methods useful for labeling and detection of analytes, specifically, for rolling circle amplification (RCA). The compns. generally are assocns. of three components: reporter binding agents, amplification target circles, and DNA polymerase. The compns. are assembled prior to their use in a RCA reaction and can be stored and transported prior to use without substantial loss of activity. The reporter binding agents generally are composed of a specific binding mol., such an antibody, and a rolling circle replication primer. The specific binding mol. can be specific for a target mol. The rolling circle replication primer has sequence complementary to the amplification target circle. The DNA polymerase, such as polymerase from ϕ29 phage, can interact with the rolling circle replication primer and amplification target circle. For use as a general reagent, the specific binding mol. is not bound to the target mol. until the composition is used in an assay. The use of an embodiment of the disclosed reagent compns. in rolling circle amplification and anal. of the effect of storage of the reagents on amplification were demonstrated. The RCA reagents were made up of anti-biotin antibody conjugated to a rolling circle replication primer with an amplification target circle hybridized to the rolling circle replication primer and ϕ29 DNA polymerase bound to the primer and circle.

IC ICM C12Q001-68
ICS C12P019-34
NCL 435006000; 435091200
CC 9-15 (Biochemical Methods)
Section cross-reference(s): 3
IT **Silanes**
RL: DEV (Device component use); USES (Uses)
(Functionalized, **solid support**; universal reagents useful for labeling and detection of analytes for rolling circle amplification and methods of storage and use)
IT **Immunoassay**
(immunohistochem.; universal reagents useful for labeling and detection of analytes for rolling circle amplification and methods of storage and use)

L73 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:454588 HCAPLUS
DOCUMENT NUMBER: 139:3197
TITLE: Microfluidic device and surface decoration process for solid phase affinity binding assays
INVENTOR(S): Yager, Paul; Garcia, Elena
PATENT ASSIGNEE(S): University of Washington, USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003048736	A2	20030612	WO 2002-US38953	20021205
WO 2003048736	A3	20030912		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003124623	A1	20030703	US 2002-310707	20021205
EP 1461606	A2	20040929	EP 2002-795760	20021205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: US 2001-337606P P 20011205
WO 2002-US38953 W 20021205

AB This invention provides a microfluidic device for use in the detection of one or more analytes in a fluid using solid-phase affinity binding assays. The device offers a practical, easy-to-use, portable, inexpensive, robust anal. system for the parallel and quant. detection of multiple analytes. In addition, this invention provides methods and devices for the formation of concentration gradients of capture mols. immobilized on a solid phase.

IC ICM G01N
CC 9-1 (Biochemical Methods)
IT Glass, uses
Metals, uses
Polymers, uses
Polysiloxanes, uses
RL: DEV (Device component use); USES (Uses)
(microfluidic device and surface decoration process for **solid** phase affinity binding **assays**)

L73 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:796302 HCAPLUS
DOCUMENT NUMBER: 138:234366
TITLE: Magnetic polysiloxane-polyvinyl alcohol composite as solid-phase in chemiluminescent assays
AUTHOR(S): Coelho, R. A. L.; Jaques, G. A.; Barbosa, A. D.; Velazquez, G.; Montenegro, S. M. L.; Azevedo, W. M.; Carvalho, L. B., Jr.
CORPORATE SOURCE: Laboratorio de Imunopatologia Keizo Asami and Departamento de Bioquimica, Universidade Federal de Pernambuco, Cidade Universitaria, Recife, 50670-420, Brazil
SOURCE: Biotechnology Letters (2002), 24(20), 1705-1708
CODEN: BILED3; ISSN: 0141-5492
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A polysiloxane and polyvinyl alc. interpenetrating polymer network was synthesized and its ferromagnetic derivative was used as solid support for antigen covalent immobilization in chemiluminescent assays. Only 0.625

μg of either Trypanosoma cruzi or Schistosoma mansoni antigens immobilized onto the magnetic particles (2.5 mg) were sufficient to detect the correspondent human IgG within a nanogram scale.

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 10, 14

IT **Polysiloxanes, uses**
RL: DEV (Device component use); USES (Uses)
(magnetic polysiloxane-polyvinyl alc. composite as **solid** -phase in chemiluminescent **assays**)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:394145 HCAPLUS
DOCUMENT NUMBER: 138:103159
TITLE: Polysiloxane/PVA-glutaraldehyde hybrid composite as solid phase for immunodetections by ELISA
AUTHOR(S): Barros, A. E. Lima; Almeida, A. M. P.; Carvalho, L. B., Jr.; Azevedo, W. M.
CORPORATE SOURCE: Laboratorio de Imunopatologia Keizo Asami and Departamento de Bioquimica, Universidade Federal de Pernambuco, Recife, Brazil
SOURCE: Brazilian Journal of Medical and Biological Research (2002), 35(4), 459-463
CODEN: BJMRDK; ISSN: 0100-879X
PUBLISHER: Associacao Brasileira de Divulgacao Cientifica
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We developed an efficient method to prepare a hybrid inorg.-organic composite based on polyvinyl alc. (PVA) and polysiloxane using the sol-gel disk technique. Antigen obtained from Yersinia pestis was covalently immobilized onto these disks with glutaraldehyde and used as solid phase in ELISA for antibody detection in serum of rabbits exptl. immunized with plague. Using 1.25 μg antigen per disk, a peroxidase conjugate dilution of 1:4,000 and a serum dilution of 1:200 were adequate for the establishment of the procedure. These values are similar to those used for PVA-glutaraldehyde disks, plasticized filter paper disks and the polyaniline-Dacron composite disks. This procedure is comparable to that which utilizes the adsorption of the antigen to conventional PVC plates, with the amount of antigen being one fourth that employed in conventional PVC plates (5 μg/well). In addition to the performance of the polysiloxane/PVA-glutaraldehyde disk as a matrix for immunodetection, its easy synthesis and low cost are addnl. advantages for com. application.

CC 9-10 (Biochemical Methods)

IT **Immunoassay**
(enzyme-linked immunosorbent assay; polysiloxane/polyvinyl alc.-glutaraldehyde hybrid composite as solid phase for immunodetections by ELISA)

IT **Polysiloxanes, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(polysiloxane/polyvinyl alc.-glutaraldehyde hybrid composite as **solid** phase for immunodetections by ELISA)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:256512 HCAPLUS
DOCUMENT NUMBER: 136:274221
TITLE: Improved support for solid phase hybridization assays

INVENTOR(S): Patterson, Brian C.; Mielewczyk, Slowomir; Maurer, Anthony J.
PATENT ASSIGNEE(S): Matrix Technologies Corporation, USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002027026	A2	20020404	WO 2001-US30196	20010927
WO 2002027026	A3	20030530		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001094777	A5	20020408	AU 2001-94777		20010927
PRIORITY APPLN. INFO.:			US 2000-236287P	P	20000928
			WO 2001-US30196	W	20010927

AB A method of immobilizing a nucleic acid on a solid support and the resulting support containing the immobilized nucleic acid. The solid support has at least one immobilized thiol group, which reacts with and binds a nucleic acid to immobilized the nucleic acid on the support. The thiol group can be rendered unreactive, and then can be reactivated to bind the nucleic acid. The method is applicable for use with either double-stranded or single-stranded nucleic acid, and can be used to bind oligonucleotides and/or polymerase chain reaction products. The method is exemplified with rabbit β-globin PCR products prepared using a forward primer with a 5'-acylamide modification added during primer synthesis using an acrylamide phosphoramidite (Acrydite phosphoramidite). The 5'-acrylamide group readily forms a thioether bond with thiol groups on N,N'-bis(acryloyl)cysteamine-treated glass slides. The Acrydite-modified probes give higher hybridization signals than amine-modified or unmodified oligonucleotides.

IC ICM C12Q001-68
CC 3-1 (Biochemical Genetics)
IT Polymers, biological studies
Silanes
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(thiol or disulfide-containing; improved **support** for **solid** phase hybridization **assays**)

L73 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:134611 HCAPLUS
DOCUMENT NUMBER: 136:332686
TITLE: Prototyping of microfluidic devices in poly(dimethylsiloxane) using solid-object printing
AUTHOR(S): McDonald, J. Cooper; Chabinyc, Michael L.; Metallo, Steven J.; Anderson, Janelle R.; Stroock, Abraham D.; Whitesides, George M.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Harvard University, Cambridge, MA, 02138, USA
SOURCE: Analytical Chemistry (2002), 74(7), 1537-1545
CODEN: ANCHAM; ISSN: 0003-2700
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A solid-object printer was used to produce masters for the fabrication of microfluidic devices in poly(dimethylsiloxane) (PDMS). The printer provides an alternative to photolithog. for applications where features of >250 μm are needed. Solid-object printing is capable of delivering objects that have dimensions as large as 250 + 190 + 200 mm (x, y, z) with feature sizes that can range from 10 cm to 250 μm. The user designs a device in 3-D in a CAD program, and the CAD file is used by the printer to fabricate a master directly without the need for a mask. The printer can produce complex structures, including multilevel features, in one unattended printing. The masters are robust and inexpensive and can be fabricated rapidly. Once a master was obtained, a PDMS replica was fabricated by molding against it and used to fabricate a microfluidic device. The capabilities of this method are demonstrated by fabricating devices that contain multilevel and tall features, devices that cover a large area (.apprx.150 cm2), and devices that contain nonintersecting, crossing channels.

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 9, 47

IT **Immunoassay**
(apparatus; prototyping of microfluidic devices in poly(dimethylsiloxane) using solid-object printing in relation to)

IT **Polysiloxanes, processes**
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(prototyping of microfluidic devices in poly(dimethylsiloxane) using **solid**-object printing)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:72193 HCAPLUS
DOCUMENT NUMBER: 136:115066
TITLE: Novel activated modular grafted polymeric surfaces for solid phase chemistry applications
INVENTOR(S): Ede, Nicholas Jon; Ercole, Francesca; Pham, Yen; Tribbick, Gordon; Sandanayake, Saman; Perera, Senake
PATENT ASSIGNEE(S): Mimotopes Pty. Ltd., Australia
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002006384	A1	20020124	WO 2001-AU850	20010713

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002076835	A1	20020620	US 2001-905676	20010713
EP 1303559	A1	20030423	EP 2001-951220	20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004503673	T2	20040205	JP 2002-512283	20010713
US 2004076623	A1	20040422	US 2003-332892	20030625
PRIORITY APPLN. INFO.:			US 2000-218236P	P 20000714
			US 2001-282099P	P 20010406
			WO 2001-AU850	W 20010713

AB The present invention relates generally to new surfaces for solid phase chemical applications, more specifically plastics surfaces modified by graft polymerization for use in chemical synthesis and/or immobilization of chemical entities and/or compds. In particular the invention relates to an activated modular grafted polymeric surface, which is suitable for use as a reagent for solid phase organic synthesis, or as a reagent for the affinity capture, presentation or preparation of biomols. such as proteins, oligonucleotides, nucleic acids, peptides, and lectins. The grafted polymeric surfaces of the invention are particularly useful as scavenger reagents in combinatorial synthetic protocols, and as affinity reagents in protein purification and proteomics. Diagrams describing the apparatus are given.

IC ICM C08J007-12
ICS C08J007-14; C08J007-16; C08J007-18; G01N033-545; C07K017-08; C07K001-22

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 38

IT Epoxy resins, preparation
Natural rubber, preparation
Polyamides, preparation
Polycarbonates, preparation
Polyethers, preparation
Polyoxymethylenes, preparation
Polysiloxanes, preparation
Polyurethanes, preparation
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(activated modular surface; novel activated modular grafted polymeric surfaces for **solid** phase chemical applications)

IT **Immunoassay**
(enzyme-linked immunosorbent assay; novel activated modular grafted polymeric surfaces for solid phase chemical applications)

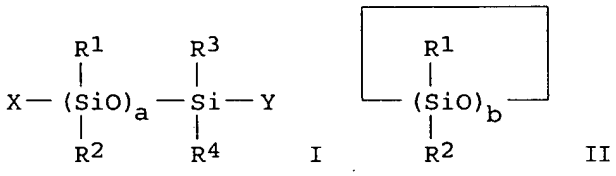
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:12734 HCAPLUS
DOCUMENT NUMBER: 134:68442
TITLE: Carrier support for immunoassay, and its use for solid phase for immunoassay
INVENTOR(S): Kumazawa, Toshiaki; Tagami, Hiroaki; Kiya, Yoshiyasu; Yokohama, Hiroaki; Mori, Hideharu; Matsumori, Shigeru
PATENT ASSIGNEE(S): Kyowa Medex Co., Ltd., Japan
SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001145	A1	20010104	WO 1999-JP3427	19990625
W: AU, BG, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2377946	AA	20010104	CA 1999-2377946	19990625
AU 9942897	A1	20010131	AU 1999-42897	19990625
EP 1202063	A1	20020502	EP 1999-973928	19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.: WO 1999-JP3427 W 19990625
GI



I II

AB A newly developed carrier support for immunoassay is usable regardless of glass fiber composition, and is capable of improving the measurement sensitivity in comparison with the conventional carrier support using glass fiber. The carrier support is composed of, at least on its surface, a silicon compound (e.g., dialkylpolysiloxan, hydrophobic silane) represented by a general formula (I) or (II). In I or II, R1 to R4, X and Y independently represent each hydrogen or an optionally substituted organic group; a is an integer of 0 to 5,000; and b is an integer of 3 to 20. An improved sensitivity was observed when the glass fiber membrane coated with dimethylpolysiloxan or octadecyltriethoxysilane was applied to an immunoassay of anti-HCV antibody or anti-Treponema pallidum antibody.

IC ICM G01N033-552
ICS G01N033-551; G01N033-543
CC 9-10 (Biochemical Methods)
IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(alkenyl; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)
IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(alkoxy, alkyltrialkoxy; vinyltrialkoxy; phenyltrialkoxy; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)
IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(alkoxylated; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)
IT **Silanes**

RL: NUU (Other use, unclassified); USES (Uses)
(alkylalkoxy, alkyltrialkoxy; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(aryl, phenyltrialkoxy; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)

IT Alkyl groups
Amino group
Amphiphiles
Carriers
Ceramics
Coating materials
Immunoassay
Membranes, nonbiological
Phenyl group
Porous materials
Treponema pallidum
(carrier support for immunoassay, and use for solid phase for immunoassay)

IT **Polysiloxanes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(dialkyl; di-Me; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)

IT **Silanes**
RL: NUU (Other use, unclassified); USES (Uses)
(hydrophobic; carrier **support** for **immunoassay**, and use for **solid** phase for **immunoassay**)

IT **112-03-8**, Cation AB **151-21-3**, SDS, analysis 9002-93-1, Triton-X100 9004-95-9, Brij-56 **9005-67-8**, Tween-60 **115055-57-7**, Persoft EL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(carrier support for immunoassay, and use for solid phase for immunoassay)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:421412 HCAPLUS
DOCUMENT NUMBER: 133:55657
TITLE: Coupling of lipopolysaccharide-derived carbohydrates onto solid surfaces
INVENTOR(S): Jakobsen, Mogens Havsteen; Boas, Ulrik; Jauho, Eva Irene Stenbaek; Heegaard, Peter M. H.
PATENT ASSIGNEE(S): Exiqon A/S, Den.
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000036419	A1	20000622	WO 1999-DK704	19991215

W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,

GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6436653	B1	20020820	US 1999-460543	19991214
CA 2355292	AA	20000622	CA 1999-2355292	19991215
BR 9916330	A	20010911	BR 1999-16330	19991215
EP 1141718	A1	20011010	EP 1999-959257	19991215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002532719	T2	20021002	JP 2000-588607	19991215
NZ 512295	A	20030725	NZ 1999-512295	19991215
US 2002128381	A1	20020912	US 2002-132795	20020425

PRIORITY APPLN. INFO.:

DK 1998-1655	A	19981215
US 1999-116280P	P	19990119
US 1999-460543	A1	19991214
WO 1999-DK704	W	19991215

OTHER SOURCE(S): MARPAT 133:55657

AB The present invention provides a method for immobilizing a polysaccharide (PS) to a solid surface, said polysaccharide having a keto-carboxy group (-C(=O)-COOH) or a ketal or hemiketal group corresponding thereto, e.g. derived from KDO (2-keto-3-deoxy-D-mannooctonic acid). The method comprises the steps of: (a) forming a covalent bond between the carboxy group of the polysaccharide and a reporter mol. (RM), comprising a recognition/substrate site (e.g. biotin or an anthraquinone); and (b) immobilizing for diagnostic purposes, e.g. for the detection of bacterial infections from Gram-neg. bacteria.

IC ICM G01N033-569
ICS G01N033-543; C07H003-04; C07H003-06

CC 9-14 (Biochemical Methods)
Section cross-reference(s): 4, 6, 10, 14, 15, 16

IT Glass, reactions
Polymers, reactions
Silanes
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(as **solid** surface; coupling of lipopolysaccharide-derived carbohydrates onto **solid** surfaces)

IT **Immunoassay**
(enzyme-linked immunosorbent assay; coupling of lipopolysaccharide-derived carbohydrates onto solid surfaces)

IT **Immunoassay**
(solid-phase; coupling of lipopolysaccharide-derived carbohydrates onto solid surfaces)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:210034 HCAPLUS
DOCUMENT NUMBER: 132:248234
TITLE: Inventory control using semiconductor nanocrystal ensembles for luminescent tagging
INVENTOR(S): Bawendi, Moungi G.; Jensen, Klavs F.
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000017103	A2	20000330	WO 1999-US21373	19990917
WO 2000017103	A3	20000831		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6617583	B1	20030909	US 1998-160458	19980924
CA 2344145	AA	20000330	CA 1999-2344145	19990917
EP 1113986	A2	20010711	EP 1999-954615	19990917
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003523718	T2	20030812	JP 2000-574022	19990917
US 2002160412	A1	20021031	US 2002-157232	20020530
US 6774361	B2	20040810		
US 2004217298	A1	20041104	US 2004-858207	20040602

PRIORITY APPLN. INFO.:

US 1998-101046P	P	19980918
US 1998-160458	A	19980924
US 1998-100947P	P	19980918
US 1998-156863	A	19980918
US 1998-160454	A	19980924
US 1999-397428	A	19990917
US 1999-397432	A	19990917
US 1999-397436	A	19990917
WO 1999-US21373	W	19990917
US 2002-157232	A3	20020530

AB Compns. comprising ≥1 populations of member semiconductor nanocrystals are described in which each population has a distinct characteristic spectral emission; compns. in which the nanocrystals are conjugated with a support are also described. Compns. can be selected to emit a desired wavelength to produce a characteristic spectral emission in narrow spectral widths, and with a sym., nearly Gaussian line shape, by changing the composition and size of the semiconductor nanocrystals. Addnl., the intensity of the emission at a particular characteristic wavelength can also be varied, thus enabling the use of binary or higher order encoding schemes. Libraries of compds. (e.g., combinatorial libraries) in which each compound in the library is bound to an individual support are described in which each support has associated with it ≥1 populations of semiconductor nanocrystals, each population having distinct characteristic spectral emissions. Methods for identifying items of interest are described which entail providing a semiconductor nanocrystal composition; associating the composition with the item of interest to provide an encoded item of interest; subjecting the encoded item of interest to a light source to obtain the characteristic spectral emission; and correlating the spectral emission with the identity of the item of interest. Methods for identifying a compound having a characteristic of interest are further described which entail providing a library of member compds. each of which

is attached to a support to which is also attached ≥1 populations of semiconductor nanocrystals each population having distinct characteristic spectral emissions; testing each member of the library of compds. to identify compds. having a characteristic of interest; subjecting each support to a light source to obtain the characteristic spectral emission; and correlating the spectral emission with the identity of the compound having the characteristic of interest; libraries with different tag populations may be brought into contact with each other and information about which of the mols. from a second library of mols. are associated with the first library of mols. may be obtained by observing the first and second spectral emissions associated with the compds. of the first and second libraries.

IC ICM C01B033-00

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 73, 76, 79, 80

IT **Immunoassay**
(immunocytochem.; semiconductor nanocrystal ensembles for luminescent tagging and their use)

IT Analysis
Combinatorial chemistry
Combinatorial library
DNA sequence analysis
Fluorescent indicators
Immunoassay
Luminescent substances
Marking
Nanocrystals
Semiconductor compounds
Semiconductor materials
(semiconductor nanocrystal ensembles for luminescent tagging and their use)

IT Acrylic polymers, uses
Epoxy resins, uses
Glass, uses
Peptides, uses
Polyethers, uses
Polyimides, uses
Polyphosphates
Polysaccharides, uses
Polysiloxanes, uses
Polysulfones, uses
Silica gel, uses
RL: DEV (Device component use); USES (Uses)
(**support**; semiconductor nanocrystal ensembles for luminescent tagging and their use)

L73 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:191325 HCAPLUS
DOCUMENT NUMBER: 132:205111
TITLE: Microcuvette array etched in solid support comprising hydrophilic wells and hydrophobic side walls
INVENTOR(S): Caillat, Patrice; Rosilio, Charles
PATENT ASSIGNEE(S): Commissariat A L'energie Atomique, Fr.
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000016082	A1	20000323	WO 1999-FR2191	19990915
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2783179	A1	20000317	FR 1998-11561	19980916
FR 2783179	B1	20001006		
EP 1114314	A1	20010711	EP 1999-942974	19990915
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002525573	T2	20020813	JP 2000-570568	19990915
PRIORITY APPLN. INFO.:			FR 1998-11561 A	19980916
			WO 1999-FR2191 W	19990915

AB The invention concerns a microcuvette array for chemical and biol. anal. that is etched into a solid block; the microwells, their walls and the rims are hydrophilic; the dividing barriers between the microwells are made hydrophobic; thus the sample and reagent drops are guided into the microwells, thereby increasing the number of anal. sites on the support. The microcuvette array is used for hybridization and immunoassays.

IC ICM G01N027-327
ICS G01N033-543; C12Q001-00

CC 9-1 (Biochemical Methods)

IT Cuvettes
Drops
Hydrophilicity
Hydrophobicity
Immunoassay
Microtiter plates
Nucleic acid hybridization
Silylation
(microcuvette array etched in solid support comprising hydrophilic wells and hydrophobic side walls)

IT **Silanes**
RL: DEV (Device component use); USES (Uses)
(microcuvette array etched in **solid support** comprising hydrophilic wells and hydrophobic side walls)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:806760 HCAPLUS
DOCUMENT NUMBER: 130:48288
TITLE: Attachment of unmodified nucleic acids to silanized solid phase for nucleic acid assay
INVENTOR(S): Shi, Jufang; Boyce-Jacino, Michael T.
PATENT ASSIGNEE(S): Molecular Tool, Inc., USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855593	A1	19981210	WO 1998-US11662	19980605
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				

DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5919626	A	19990706	US 1997-870010		19970606
AU 9877260	A1	19981221	AU 1998-77260		19980605
AU 739412	B2	20011011			
EP 996705	A1	20000503	EP 1998-925267		19980605
R: CH, DE, FR, GB, LI					
JP 2002506347	T2	20020226	JP 1999-502940		19980605
US 6136962	A	20001024	US 1998-102371		19980623
US 6387626	B1	20020514	US 2000-638436		20000814
PRIORITY APPLN. INFO.:			US 1997-870010	A	19970606
			WO 1998-US11662	W	19980605
			US 1998-102371	A1	19980623

AB Described is a simple, cost effective method for immobilizing synthetic, unmodified nucleic acid mols. onto a silane-coated solid support via covalent linkage. The highly hydrophobic silanized surface that allows oligonucleotide probe droplets to form at specific and localized positions on the solid surface, which is suitable for automated and scaled-up process for DNA array preparation Also claimed are methods for (1) preparation of
the surface by coating with a mercapto-alkyl-trimethoxysilane or glycidoxy-alkyl-silane and curing of the coating in a dry inert gas such as Ar or N2 at 60-70° for 10-14 h; and (2) coupling of unmodified nucleic acids via ether or thioether linkage in an alkaline solution The invention further concerns the use of such immobilized mols. in nucleic acid hybridization assays, sequencing by hybridization assays, and genetic analyses and combinatorial analyses involving nucleic acids or proteins for screening applications.

IC ICM C12M001-00
ICS G01N033-00

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9

IT **Silanes**
RL: DEV (Device component use); USES (Uses)
(attachment of unmodified nucleic acids to silanized **solid** phase for nucleic acid **assay**)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:143012 HCAPLUS
DOCUMENT NUMBER: 118:143012
TITLE: Methods for detecting amphiphilic antigens
INVENTOR(S): Becker, Martin; Kurn, Nurith; Liu, Yen P.; Patel, Rajesh D.; Houts, Thomas M.; Olson, John D.
PATENT ASSIGNEE(S): Syntex (U.S.A.), Inc., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 5187066	A	19930216	US 1990-479930	19900214
PRIORITY APPLN. INFO.:			US 1990-479930	19900214

AB Amphiphilic antigens in biol. samples are detected with a method comprising (1) providing in combination a hydrophilic solid support modified to have a hydrophobic surface and an assay medium suspected of containing an amphiphilic antigen, (2) incubating the combination under conditions sufficient for the amphiphilic antigen to bind to the hydrophobic surface, and (3) determining the presence or amount of the amphiphilic antigen bound to the hydrophobic surface. The amphiphilic antigen is e.g. a lipopolysaccharide antigen from a gram-neg. bacterium. The solid support is e.g. silica, polyacrylamide, or glass; the support is modified with C4-20 silanizing agents, alkylating agents, antibacterial polypeptides (e.g. polymyxin B), etc. Immunoassays are described which effectively detected amphiphilic antigen from Chlamydia bound to the hydrophobic surface of e.g. octylamine-polyacrylamide beads. Preparation of a variety of types of beads for the assays is described, as is clin. detection of Chlamydia amphiphilic antigens.

IC ICM C12Q001-00
ICS G01N033-545

NCL 435007360

CC 9-10 (Biochemical Methods)

IT **Immunoassay**
(for amphiphilic antigens, hydrophobic agent-modified hydrophilic support for antigen immobilization in)

IT Alcohols, uses
Alkyl halides
Amines, uses
Silanes
Fatty acids, uses
RL: ANST (Analytical study)
(hydrophilic **support** modified with, for antigen immobilization in amphiphilic antigen determination)

IT **Silanes**
RL: ANST (Analytical study)
(alkoxy, hydrophilic **support** modified with, for antigen immobilization in amphiphilic antigen determination)

IT **Silanes**
RL: ANST (Analytical study)
(alkyl, halo, hydrophilic **support** modified with, for antigen immobilization in amphiphilic antigen determination)

L73 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	1992:79885 HCAPLUS
DOCUMENT NUMBER:	116:79885
TITLE:	An immunoassay or binding assay using internal calibration to measure the amount of analyte in a sample
INVENTOR(S):	Selmer, Johan; Poulsen, Fritz
PATENT ASSIGNEE(S):	Novo-Nordisk A/S, Den.
SOURCE:	PCT Int. Appl., 27 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9119196	A1	19911212	WO 1991-DK151	19910606
W: AU, BG, CA, FI, HU, JP, KR, NO, PL, RO, SU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
ZA 9104068	A	19920325	ZA 1991-4068	19910529
AU 9179678	A1	19911231	AU 1991-79678	19910606
EP 532627	A1	19930324	EP 1991-911152	19910606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05508013	T2	19931111	JP 1991-510326	19910606
US 5387503	A	19950207	US 1992-938039	19921112
PRIORITY APPLN. INFO.:			DK 1990-1380 A	19900606
			WO 1991-DK151 A	19910606

AB A method of determining the amount of test analyte in a sample using internal calibration comprises: (a) mixing a sample with a predetd. amount of a calibrator analyte foreign to the sample and with a comparable behavior in an assay to that of the test analyte; (b) contacting the mixture (a) with a solid support containing, each in a sep. area, a reagent for binding the test and calibrator analytes, resp.; (c) contacting the solid support with a mixture of labeled reagents for binding the test and calibrator analytes, resp.; and (d) determining the amount of test analyte in the sample by comparing the levels of labeled reagent bound to the test and calibrator analytes. Thus, EIA of creatine kinase M and B subunit (CK-MB) in serum samples uses myoglobin as internal calibrator. Test CK-MB-containing serum samples with addition of human myoglobin were added to each well of a Biodot Microfiltration Apparatus (membrane) consisting of a well sensitized with monoclonal antibody to human CK B subunit, a 2nd well sensitized with monoclonal antibody to human myoglobin, and a control well without sensitization. This was followed by adding a mixture of horseradish peroxidase-labeled anti-human CK M subunit monoclonal antibody and horseradish peroxidase-labeled anti-human myoglobin monoclonal antibody. One min. after the addition, the membrane was washed and treated with a substrate solution The response was read by a reflectometer and the measured reflectance was transformed according to the Kubelka-Munk equation for CK-MB determination The myoglobin-calibrated CK-MB assay was able to quantitate the CK-MB concentration in serum and the values compared well to those obtained by conventional calibration using a set of CK-MB calibrators. A kit for the anal. also is claimed.

IC ICM G01N033-543
ICS G01N033-96

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 2, 7

IT **Immunoassay**
(analyte determination in fluid samples by, using internal calibration)

IT Ceramic materials and wares
Ion exchangers
Polymers, uses
Polysaccharides, uses
Siloxanes and Silicones, uses
RL: USES (Uses)
(as **solid supports**, in analyte determination in fluid samples by **immunoassay** or binding **assay** using internal calibration)

IT **Immunoassay**
(enzyme, analyte determination in fluid samples by, using internal calibration)

L73 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:403455 HCAPLUS
DOCUMENT NUMBER: 109:3455
TITLE: Bioaffinity and ion exchange separations with liquid exchange supports
INVENTOR(S): Breillatt, Julian P.; Eveleigh, John William
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 246103	A2	19871119	EP 1987-304303	19870514
EP 246103	A3	19890222		
EP 246103	B1	19930825		
R: CH, DE, FR, GB, IT, LI, NL, SE				
DK 8702467	A	19871116	DK 1987-2467	19870514
JP 63039895	A2	19880220	JP 1987-117201	19870515
US 5268307	A	19931207	US 1990-606367	19901031
US 5268456	A	19931207	US 1990-606390	19901031
US 5306615	A	19940426	US 1990-606381	19901031
US 5276146	A	19940104	US 1991-761152	19910917

PRIORITY APPLN. INFO.: US 1986-863607 A 19860515
US 1987-32642 A 19870331
US 1987-134026 B3 19871217

AB Bioaffinity and ion-exchange separation methods are described along with liquid supports utilized in these methods. The support is based on an inert carrier (e.g. perfluorocarbon) with ligands (e.g. antigens) or binders (e.g. antibodies) attached to its surface. Methods for preparing such supports and their use in capturing neutral and charged target mols. from samples and in anal. of e.g., nucleic acid are also described. A cation exchange support was prepared by vigorously mixing perfluorodecalin 20, deionized water 20, and Zonyl FSP 4 mL for 10-15 s, centrifuging at 1000 rpm for 3-5 min, removing the aqueous layer, adding 20 mL deionized water to the emulsion and repeating the process 3 times with 20 mL deionized water each time. A purple aqueous solution containing methylene blue and cresol red at pH 8 was added to the cation exchange emulsion, and the mixture was vortexed and allowed to settle. The lower perfluorocarbon phase became blue and the aqueous layer contained the red dye.

IC ICM B01D015-08
ICS G01N033-536; C12Q001-68
CC 9-3 (Biochemical Methods)
IT Dyes
Antibodies
Antigens
Enzymes
Haptens
Perfluorocarbons
Proteins, uses and miscellaneous
Siloxanes and Silicones, uses and miscellaneous
Vitamins
Hydrocarbons, uses and miscellaneous
RL: ANST (Analytical study)
(liquid **supports** containing, for bioaffinity and ion-exchange sepns.)

IT **Immunochemical analysis**
(**immunoassay**, for detecting analytes, liquid supports for)

L73 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1978:544914 HCAPLUS
DOCUMENT NUMBER: 89:144914
TITLE: Determination of antigens and antibodies
INVENTOR(S): Ishikawa, E.
PATENT ASSIGNEE(S): Gist-Brocades N. V., Neth.
SOURCE: Belg., 23 pp.
CODEN: BEXXAL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 858407	A1	19780306	BE 1977-180677	19770905
JP 53034917	A2	19780331	JP 1976-108222	19760909
FR 2364447	A1	19780407	FR 1977-26856	19770905
GB 1591660	A	19810624	GB 1977-37033	19770905
PRIORITY APPLN. INFO.:			JP 1976-108222 A	19760909

AB A modification of enzyme immunoassay is described using antigens or haptens immobilized by phys. adsorption on silicone particles (or on conventional support materials treated with silicone oil) treated with 3-aminopropyltriethoxysilane. This reduces considerably nonspecific adsorption and facilitates the separation of solid and liquid phases. Example: a piece of silicone tubing (length and external and internal diams. 3, 4, and 2.5 mm, resp.) was incubated 30 min at room temperature and 16 h at 4° with rabbit IgG to ornithine-δ-aminotransferase, washed, incubated with 50 μL of the solution of ornithine-δ-aminotransferase of unknown concentrate for 4 h at 37° and 16 h at 4°, washed, incubated with 150 μL of 1650 units of the complex of the IgG with β-D-galactosidase, incubated 6 h at 37°, washed, and the adsorbed enzyme activity was determined fluorometrically after incubation with 4-methylumbelliferyl-β-D-galactoside for 5-30 min at 30°. The sensitivity of this method is >0.03 femtomol whereas that of methods not using silicon supports was >0.1 femtomol of the ornithine-δ-aminotransferase.

IC G01N
CC 15-1 (Immunochemistry)
Section cross-reference(s): 9
IT **Siloxanes and Silicones, uses and miscellaneous**
(3-aminopropyltriethoxy, in enzyme **immunoassay solid supports**)

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=> d que
L74       15687 SEA FILE=MEDLINE ABB=ON  PLU=ON  SILOXANES+NT/CT
L75      270844 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNOASSAY+NT/CT
L76         104 SEA FILE=MEDLINE ABB=ON  PLU=ON  L74 AND L75
L78          59 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND (SOLID OR SUPPORT)
L79           7 SEA FILE=MEDLINE ABB=ON  PLU=ON  L78 AND (?STYRENE? OR GLASS
                 OR CERAMIC)


=> d l79 ibib abs hitind 1-7

L79  ANSWER 1 OF 7     MEDLINE on STN
ACCESSION NUMBER:   2003353731     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 12886422
TITLE:              The use of polysiloxane/polyvinyl alcohol beads as
                    solid phase in IgG anti-Toxocara canis detection
                    using a recombinant antigen.
AUTHOR:             Coelho Raquel de Andrade Lima; Yamasaki Hiroshi; Perez
                    Emilia; de Carvalho Luiz Bezerra Jr
CORPORATE SOURCE:   Laboratorio de Imunopatologia Keizo Asami, Departamento de
                    Bioquimica, Universidade Federal de Pernambuco, Recife, PE,
                    Brasil.. lbcj@hotlink.com.br
SOURCE:             Memorias do Instituto Oswaldo Cruz, (2003 Apr) 98 (3)
                    391-3.
                    Journal code: 7502619. ISSN: 0074-0276.
PUB. COUNTRY:       Brazil
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200308
ENTRY DATE:         Entered STN: 20030730
                    Last Updated on STN: 20030822
                    Entered Medline: 20030821
AB   Immunodetection of human IgG anti-Toxocara canis was developed based on
     ELISA and on the use of polysiloxane/polyvinyl alcohol (POS/PVA) beads.  A
     recombinant antigen was covalently immobilized, via glutaraldehyde, onto
     this hybrid inorganic-organic composite, which was prepared by the sol-gel
     technique.  Using only 31.2 ng antigen per bead, a peroxidase conjugate
     dilution of 1:10,000 and a serum dilution of 1:200 were adequate for the
     establishment of the procedure.  This procedure is comparable to that
     which utilizes the adsorption of the antigen to conventional PVC plates.
     However, the difference between positive and negative sera mean
     absorbances was larger for this new glass based assay.  In
     addition to the performance of the POS/PVA bead as a matrix for
     immunodetection, its easy synthesis and low cost are additional advantages
     for commercial application.
CT   Check Tags: Human
      Absorption
      Animals
     *Antibodies, Helminth: AN, analysis
      Antigens, Helminth: AN, analysis
      Child
        Enzyme-Linked Immunosorbent Assay: IS, instrumentation
       *Enzyme-Linked Immunosorbent Assay: MT, methods
     *Immunoglobulin G: AN, analysis
     *Polyvinyl Alcohol: DU, diagnostic use
       *Siloxanes: DU, diagnostic use
     *Toxocara canis: IM, immunology
```

Toxocariasis: DI, diagnosis
RN 9002-89-5 (Polyvinyl Alcohol)
CN 0 (Antibodies, Helminth); 0 (Antigens, Helminth); 0 (Immunoglobulin G); 0 (Siloxanes)

L79 ANSWER 2 OF 7 MEDLINE on STN
ACCESSION NUMBER: 2003337699 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12869761
TITLE: DNA: a programmable force sensor.
AUTHOR: Albrecht Christian; Blank Kerstin; Lalic-Multhaler Mio; Hirler Siegfried; Mai Thao; Gilbert Ilka; Schiffmann Susanne; Bayer Tom; Clausen-Schaumann Hauke; Gaub Hermann E
CORPORATE SOURCE: Nanotype GmbH, Lochhamer Schlag 12, 82166 Grafelfing, Germany.
SOURCE: Science, (2003 Jul 18) 301 (5631) 367-70.
Journal code: 0404511. ISSN: 1095-9203.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200308
ENTRY DATE: Entered STN: 20030719
Last Updated on STN: 20030802
Entered Medline: 20030801

AB Direct quantification of biomolecular interaction by single-molecule force spectroscopy has evolved into a powerful tool for materials and life sciences. We introduce an approach in which the unbinding forces required to break intermolecular bonds are measured in a differential format by comparison with a known reference bond (here, a short DNA duplex). In addition to a marked increase in sensitivity and force resolution, which enabled us to resolve single-base pair mismatches, this concept allows for highly specific parallel assays. This option was exploited to overcome cross-reactions of antibodies in a protein biochip application.

CT Check Tags: Human; **Support**, Non-U.S. Gov't
Animals
Antibodies
*Base Pair Mismatch
*Biosensing Techniques
Carbocyanines
Cross Reactions
*DNA
DNA: CH, chemistry
DNA: GE, genetics
DNA: ME, metabolism
Dimethylpolysiloxanes
Fluorescence
Fluorescent Dyes
Glass
Immunoassay
Interleukin-5: AN, analysis
Interleukin-5: IM, immunology
Mice
Microscopy, Atomic Force
Nucleic Acid Conformation
Nucleic Acid Hybridization
Oligodeoxyribonucleotides: CH, chemistry
Oligodeoxyribonucleotides: ME, metabolism
*Oligonucleotide Array Sequence Analysis
*Protein Array Analysis

Protein Binding
Silicones
Temperature
Thermodynamics
RN 63148-62-9 (baysilon); 9007-49-2 (DNA)
CN 0 (Antibodies); 0 (Carbocyanines); 0 (Dimethylpolysiloxanes); 0 (Fluorescent Dyes); 0 (**Glass**); 0 (Interleukin-5); 0 (Oligodeoxyribonucleotides); 0 (Silicones); 0 (cyanine dye 5)

L79 ANSWER 3 OF 7 MEDLINE on STN
ACCESSION NUMBER: 97323290 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9179779
TITLE: Comparative studies on the interaction of proteins with a polydimethylsiloxane elastomer. II. The comparative antigenicity of primary and secondarily adsorbed IgG1 and IgG2a and their non-adsorbed counterparts.
AUTHOR: Butler J E; Navarro P; Lu E P
CORPORATE SOURCE: Department of Microbiology, University of Iowa, Iowa City 52242-1109, USA.
SOURCE: Journal of molecular recognition : JMR, (1997 Jan-Feb) 10 (1) 52-62.
Journal code: 9004580. ISSN: 0952-3499.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 19970908
Last Updated on STN: 19980206
Entered Medline: 19970826

AB The antigenicity of bovine IgG1 and IgG2a adsorbed on a polydimethysiloxane (PEP) elastomer, on a widely used **polystyrene** (Imm 2, Dynatech) or immobilized as biotinylated proteins to streptavidin covalently bound to **polystyrene** (SA-PS) was compared using various monoclonal (mAbs) and polyclonal antibodies (pAb) to bovine IgG. The IgGs were either adsorbed as native proteins or pre-denatured with 6M Guanidine-HCl (Gu-HCl) or 6 M Gu-HCl/0.1% 2-mercaptoethanol. In special situations, bovine and human IgG was immobilized by secondary adsorption to an albumin monolayer adsorbed on either PEP or Imm 2. Results indicate that pre-denaturation of IgGs with 6 M Gu-HCl/2-mercaptoethanol destroys all antigenicity whereas those IgGs pretreated with 6 M-GuHCl are indistinguishable in their antigenicity from the IgGs adsorbed to either PEP or Imm 2 without such treatment. When immobilized on SA-PS, Gu-HCl-treated IgGs were significantly less detectable, especially when tested using mAbs. In general, IgGs adsorbed on PEP or Imm 2 were less antigenic than when immobilized on SA-PS. However, two monoclonals specific for the IgG2a(A2) allotypic variant, favored the adsorbed protein and one polyclonal best recognized the IgG2a(A1) variant adsorbed on Imm 2 rather than when adsorbed on PEP or immobilized on SA-PS. Both IgG1 and IgG2a, bound by apparent protein-protein interactions to an albumin monolayer, were significantly more detectable than when directly adsorbed on either Imm 2 or PEP. Using 125I-antibody or its Fab fragment to reduce steric hindrance in detection, we observed the same differences in detectability as when measured by enzyme-linked immunosorbent assay. Failure to identify a steric hindrance effect and the preference of some antibodies for adsorbed allotypic variants, **support** the concept of adsorption-induced conformational change (AICC). We conclude that proteins adsorbed as a monolayer on the PEP elastomer used to form the envelope of silicone breast implants are conformationally altered, but not

necessarily to the same extent or the same manner as when adsorbed on **polystyrene**. The significantly great antigenicity of secondarily adsorbed IgG suggests that it may be present in near native conformation.

CT Check Tags: Comparative Study; Human; **Support**, Non-U.S. Gov't
Adsorption
Albumins: CH, chemistry
Albumins: IM, immunology
Albumins: ME, metabolism
Animals
Antibodies, Monoclonal
Antigenic Modulation
Bacterial Proteins: CH, chemistry
Biotin
Cattle
***Dimethylpolysiloxanes: CH, chemistry**
***Dimethylpolysiloxanes: ME, metabolism**
Enzyme-Linked Immunosorbent Assay
Gamma Rays
Immunoglobulin G: CH, chemistry
Immunoglobulin G: IM, immunology
*Immunoglobulin G: ME, metabolism
Immunoradiometric Assay: MT, methods
Polystyrenes: CH, chemistry
Polystyrenes: ME, metabolism
Polystyrenes: RE, radiation effects
***Silicones: CH, chemistry**
***Silicones: ME, metabolism**
Streptavidin
Surface Properties

RN 58-85-5 (Biotin); 63148-62-9 (baysilon); 9013-20-1 (Streptavidin)

CN 0 (Albumins); 0 (Antibodies, Monoclonal); 0 (Bacterial Proteins); 0 (Dimethylpolysiloxanes); 0 (Immunoglobulin G); 0 (**Polystyrenes**); 0 (Silicones)

L79 ANSWER 4 OF 7 MEDLINE on STN
ACCESSION NUMBER: 97277217 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9115199
TITLE: Patterned delivery of immunoglobulins to surfaces using microfluidic networks.
AUTHOR: Delamarche E; Bernard A; Schmid H; Michel B; Biebuyck H
CORPORATE SOURCE: IBM Research Division, Zurich Research Laboratory, CH-8803 Ruschlikon, Switzerland.
SOURCE: Science, (1997 May 2) 276 (5313) 779-81. Journal code: 0404511. ISSN: 0036-8075.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970602
Last Updated on STN: 19970602
Entered Medline: 19970519

AB Microfluidic networks (microFNs) were used to pattern biomolecules with high resolution on a variety of substrates (gold, **glass**, or **polystyrene**). Elastomeric microFNs localized chemical reactions between the biomolecules and the surface, requiring only microliters of reagent to cover square millimeter-sized areas. The networks were designed to ensure stability and filling of the microFN and allowed a homogeneous distribution and robust attachment of material to the

substrate along the conduits in the microFN. Immunoglobulins patterned on substrates by means of microFNs remained strictly confined to areas enclosed by the network with submicron resolution and were viable for subsequent use in assays. The approach is simple and general enough to suggest a practical way to incorporate biological material on technological substrates.

CT Check Tags: **Support**, Non-U.S. Gov't
Adhesiveness
Animals
Chemistry, Physical
Chickens
***Dimethylpolysiloxanes**
Enzyme-Linked Immunosorbent Assay
***Glass**
*Gold
*Immunoglobulin G
***Polystyrenes**
Rubber
***Silicones**
Surface Properties

RN 63148-62-9 (baysilon); 7440-57-5 (Gold); 9006-04-6 (Rubber)
CN 0 (Dimethylpolysiloxanes); 0 (**Glass**); 0 (Immunoglobulin G); 0 (**Polystyrenes**); 0 (Silicones)

L79 ANSWER 5 OF 7 MEDLINE on STN
ACCESSION NUMBER: 97189353 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9037611
TITLE: Adsorption-induced antigenic changes and their significance in ELISA and immunological disorders.
AUTHOR: Butler J E; Navarro P; Sun J
CORPORATE SOURCE: Department of Microbiology, University of Iowa, Iowa City 52242, USA.
SOURCE: Immunological investigations, (1997 Jan-Feb) 26 (1-2) 39-54.
Journal code: 8504629. ISSN: 0882-0139.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199704
ENTRY DATE: Entered STN: 19970507
Last Updated on STN: 19970507
Entered Medline: 19970430

AB The functional properties of 125I-labeled antibodies and antigens adsorbed on **polystyrene** and silicone were compared to their counterparts immobilized by non-adsorptive methods. Less than 20% of polyclonal (pAb) and 1-2% of monoclonal (mAb) capture antibody equivalents remained functional after adsorption as a monolayer. Survivability circa doubled or was totally rescued, when the same antibodies were immobilized via a streptavidin bridge or by using a first stage polyclonal antiglobulin capture antibody, respectively. Similarly, the antigenicity of bovine IgGs for pAb and mAb anti-IgGs was highest when the IgGs were immobilized via a streptavidin bridge or when secondarily adsorbed to an albumin monolayer. IgGs in these configurations were significantly more antigenic than when directly adsorbed on **polystyrene** or a silicone elastomer. Similar activity was seen after adsorption on **polystyrene** or silicone. Interestingly, these IgGs were equally antigenic when denatured and subsequently adsorbed in 6M guanidine-HCl versus adsorption in PBS without prior denaturation. Although many of the

above finding on antibodies and antigens could be explained by the greater accessibility of antigenic epitopes or antibody binding sites when molecules are immobilized by some type of underlying molecular layer, we also show that certain mAb and pAbs preferentially recognized allotopes on IgG2a when IgG2a was adsorbed. Furthermore, such antigenicity was highest when IgG2a was adsorbed at low, sub-monolayer concentrations. Finally, we show that differences in antigenicity need not be related to the method of immobilization, but can also result from differences in the microenvironment of the epitope. This was demonstrated using a filamentous phage clone specific for fluorescein (FLU). This clone recognizes the fluorescein hapten differently depending on the carrier protein used and the method of conjugation. Data presented in this report indicate that antibodies and antigens adsorbed on hydrophobic polymers undergo changes in their functional properties. Data suggest that both changes in conformation and the accessibility of antigen epitopes or antibody binding sites, most likely occur. Especially in the case of the latter, the functional concentration may be 1-2 orders of magnitude lower than the antibody protein concentration. These observations have implications for immunodiagnostics and emphasize the need to determine the specificity of an antibody in the assay in which it is employed and to make no assumptions about the behavior of **solid**-phase antigens and antibodies from their behavior in solution. Our studies are also relevant to the use of silicone medical prostheses. The antigenicity of IgGs adsorbed on silicone as a multilayer (secondary layer) is much higher than when directly adsorbed. Since such surfaces would be exposed to very high protein concentrations in vivo, multilayers not a monolayer, would be expected. Thus it would seem from these studies that host protein adsorbed on silicone would be expressed to the immune system at the surface of multilayers. This being the case, it seems unlikely that the adsorption of host protein in vivo would generate new epitopes against which the host's immune system could respond and subsequently initiate an autoimmune syndrome.

CT Check Tags: Comparative Study; Human; **Support**, Non-U.S. Gov't
Adsorption
Antibodies, Monoclonal: ME, metabolism
Antigens: IM, immunology
*Antigens: ME, metabolism
Bacteriophages: GE, genetics
Bacteriophages: IM, immunology
Dose-Response Relationship, Immunologic
***Enzyme-Linked Immunosorbent Assay: MT, methods**
Epitopes: ME, metabolism
Gene Library
Immunoglobulin Fragments: GE, genetics
Immunoglobulin G: ME, metabolism
*Immunologic Diseases: DI, diagnosis
Polystyrenes
Silicones

CN 0 (Antibodies, Monoclonal); 0 (Antigens); 0 (Epitopes); 0 (Immunoglobulin Fragments); 0 (Immunoglobulin G); 0 (**Polystyrenes**); 0 (Silicones); 0 (immunoglobulin Fv)

L79 ANSWER 6 OF 7 MEDLINE on STN
ACCESSION NUMBER: 95383237 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7654630
TITLE: Protein adsorption and macrophage activation on polydimethylsiloxane and silicone rubber.
AUTHOR: Anderson J M; Ziats N P; Azeez A; Brunstedt M R; Stack S; Bonfield T L

CORPORATE SOURCE: Institute of Pathology, Case Western Reserve University, Cleveland, OH 44106-4907, USA.
CONTRACT NUMBER: HL-33849 (NHLBI)
HL-48771 (NHLBI)
SOURCE: Journal of biomaterials science. Polymer edition, (1995) 7 (2) 159-69.
Journal code: 9007393. ISSN: 0920-5063.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199510
ENTRY DATE: Entered STN: 19951013
Last Updated on STN: 19951013
Entered Medline: 19951005

AB Static and dynamic human blood adsorption studies on polydimethylsiloxane, PDMS, and silicone rubber show that these materials are similar, but not identical, in their protein adsorption behavior. Fibrinogen, immunoglobulin G, and albumin were the predominant proteins identified on the material surfaces with fibronectin, Hageman factor (factor XII), and factor VIII/vWF adsorbing at intermediate levels. While the protein adsorption characteristics for the two materials were similar, higher levels of the respective proteins were identified on silicone rubber compared to PDMS. Monocytes/macrophages incubated on PDMS, silicone rubber and low density polyethylene, LDPE, with or without protein adsorption produced variable levels of IL-1 beta, IL-6 and TNF-alpha dependent on the polymer and adsorbed protein. PDMS showed lower levels of the cytokines when compared to the **polystyrene** control and polyethylene. Protein preadsorption on the PDMS, **polystyrene**, and LDPE surfaces showed lower levels of cytokines when compared to the respective quantities produced with no protein adsorption suggesting a passivating effect by the protein adsorption phenomenon on monocyte/macrophage activation. Preadsorption of IgG, fibrinogen or fibronectin decreased the quantitative expression of IL-1 beta but increased the functional activity in the thymocyte proliferation assay indicating the presence of monocyte/macrophage activation products which either downregulated the activity of IL-1 beta or upregulated thymocyte proliferation in an independent fashion.

CT Check Tags: Comparative Study; **Support**, U.S. Gov't, P.H.S.

Adsorption
*Blood Proteins: ME, metabolism
Cell Division: PH, physiology
Cells, Cultured
***Dimethylpolysiloxanes: CH, chemistry**
Dimethylpolysiloxanes: ME, metabolism
Down-Regulation
Factor VIII: ME, metabolism
Factor XII: ME, metabolism
Fibrinogen: ME, metabolism
Fibronectins: ME, metabolism
Immunoglobulin G: ME, metabolism
Interleukin-1: ME, metabolism
Interleukin-6: ME, metabolism
*Macrophage Activation: PH, physiology
*Macrophages: ME, metabolism
Monocytes: CY, cytology
Monocytes: ME, metabolism
Polyethylenes: CH, chemistry
Polyethylenes: ME, metabolism

Radioimmunoassay
Serum Albumin: ME, metabolism
***Silicone Elastomers: CH, chemistry**
Silicone Elastomers: ME, metabolism
***Silicones: CH, chemistry**
Silicones: ME, metabolism
Thymus Gland: CY, cytology
Thymus Gland: ME, metabolism
Tumor Necrosis Factor: ME, metabolism
RN 63148-62-9 (baysilon); 9001-27-8 (Factor VIII); 9001-30-3 (Factor XII); 9001-32-5 (Fibrinogen)
CN 0 (Blood Proteins); 0 (Dimethylpolysiloxanes); 0 (Fibronectins); 0 (Immunoglobulin G); 0 (Interleukin-1); 0 (Interleukin-6); 0 (Polyethylenes); 0 (Serum Albumin); 0 (Silicone Elastomers); 0 (Silicones); 0 (Tumor Necrosis Factor)

L79 ANSWER 7 OF 7 MEDLINE on STN
ACCESSION NUMBER: 89005099 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2458922
TITLE: A new siliconized-**glass** fiber as **support** for protein-chemical analysis of electroblotted proteins.
AUTHOR: Eckerskorn C; Mewes W; Goretzki H; Lottspeich F
CORPORATE SOURCE: Max-Planck-Institut fur Biochemie, Genzentrum, Martinsried, Federal Republic of Germany.
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AB A new hydrophobic **glass**-fiber **support** is presented, which is well suited to the electrophoretic transfer of proteins from polyacrylamide gels and subsequent protein-chemical analysis. Modified **glass**-fiber sheets are easily prepared by chemical reaction of the surface with poly(methyl-3,3,3-trifluoropropylsiloxane) in trifluoroacetic acid. The modification is stable during electroblotting, amino acid sequence analysis and hydrolysis. The siliconized **glass** fiber exhibits a high protein-binding capacity, allows the application of well-established staining procedures, and does not interfere with the analytical methods of modern protein chemistry at the low picomole level. Samples separated by electrophoresis and immobilized on hydrophobic **supports** fail to exhibit any detectable contamination in amino acid sequence analysis hence allowing the high performance of the available protein-chemical methods to be exploited.

CT Check Tags: **Support**, Non-U.S. Gov't
Amino Acid Sequence
Amino Acids: AN, analysis
Blotting, Western
***Dimethylpolysiloxanes**
*Electrophoresis, Polyacrylamide Gel: MT, methods
***Glass**
Immunochemistry
Membranes, Artificial
*Proteins: AN, analysis

***Silicones**
Staining and Labeling
RN 25791-89-3 (polymethyl-3,3,3-trifluoropropylsiloxane)
CN 0 (Amino Acids); 0 (Dimethylpolysiloxanes); 0 (**Glass**); 0 (Proteins); 0 (Silicones); 0 (fiberglass)